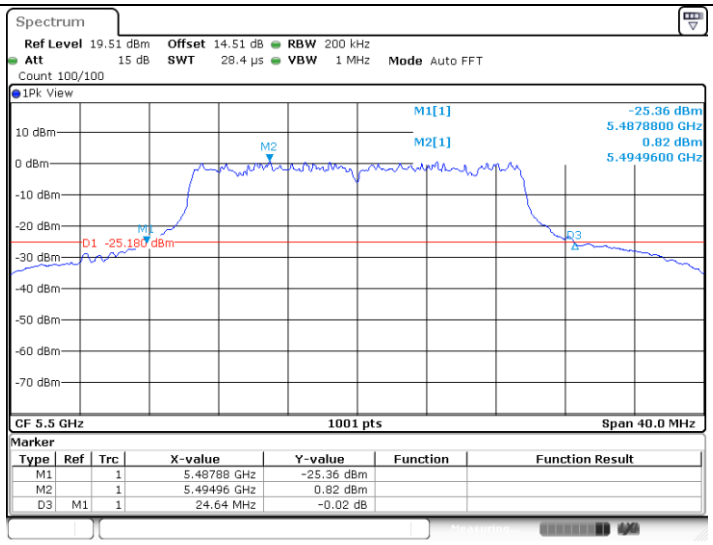
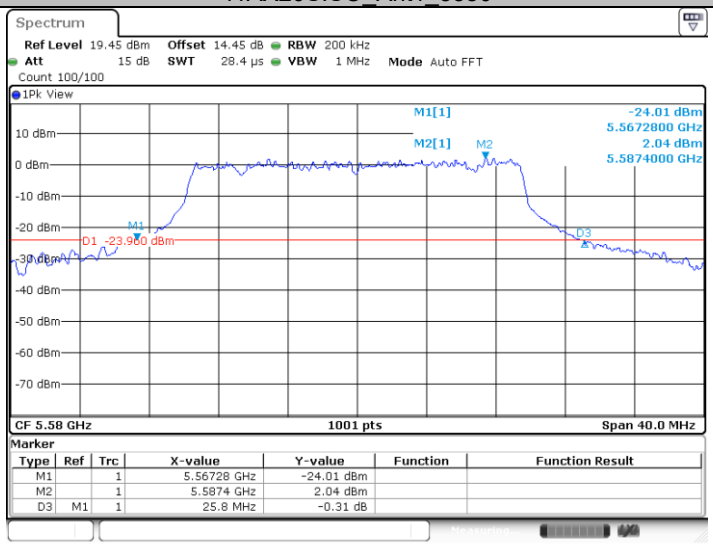
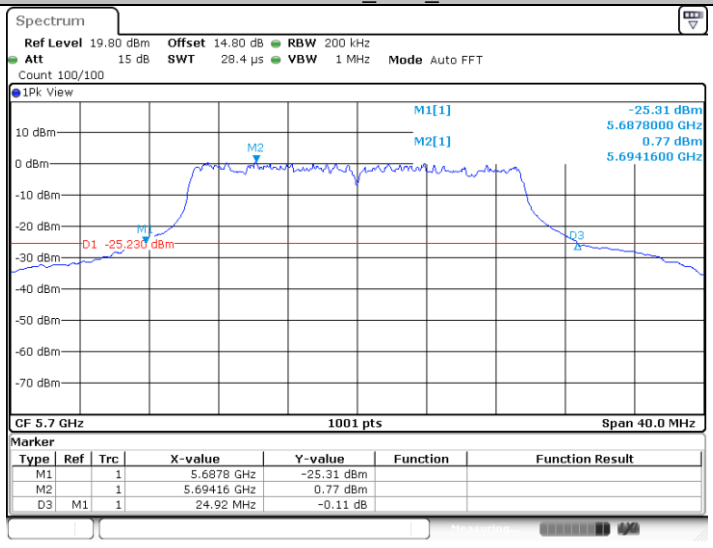


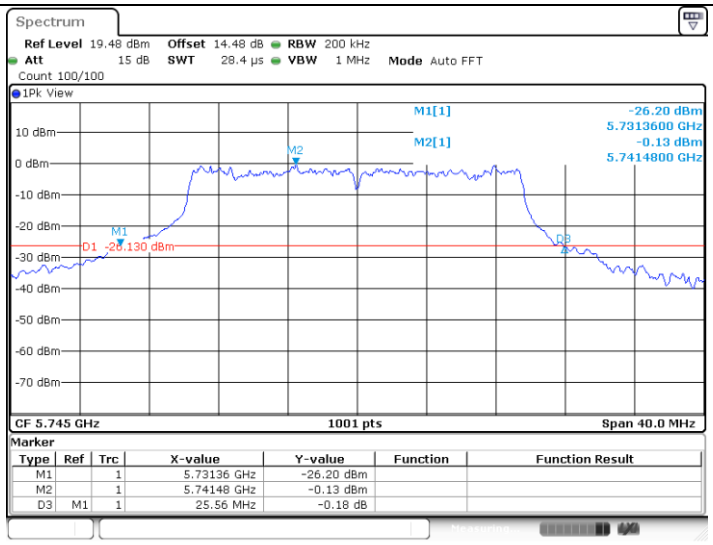
11AX20SISO_Ant1_5580



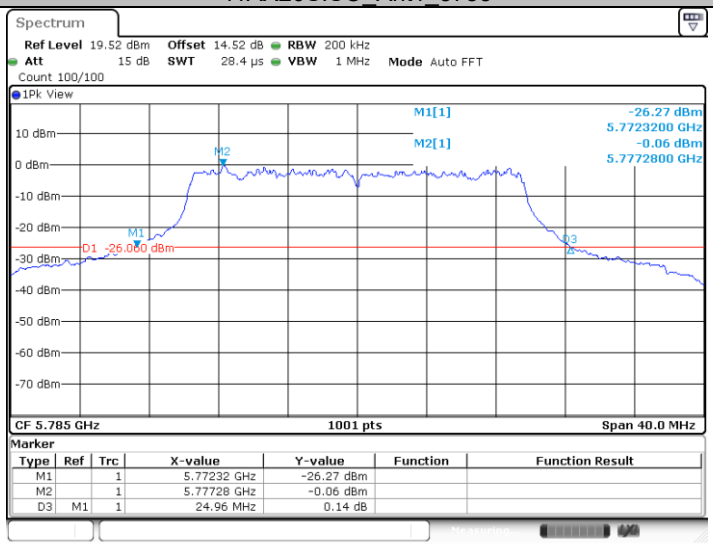
11AX20SISO_Ant1_5700



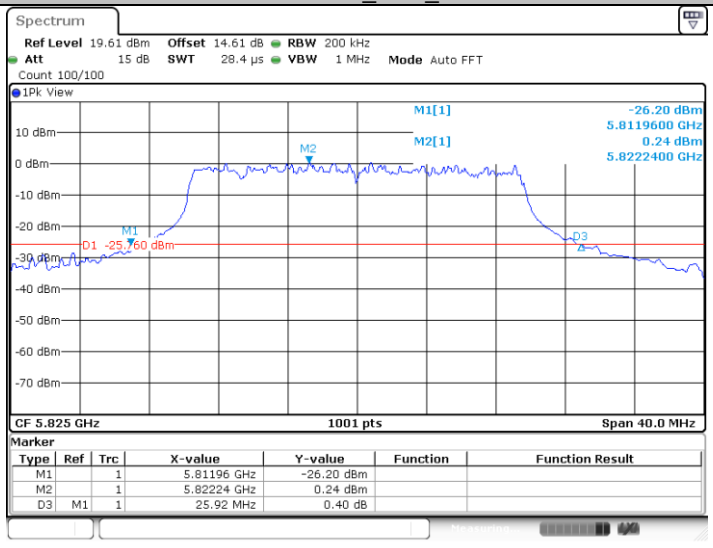
11AX20SISO_Ant1_5745



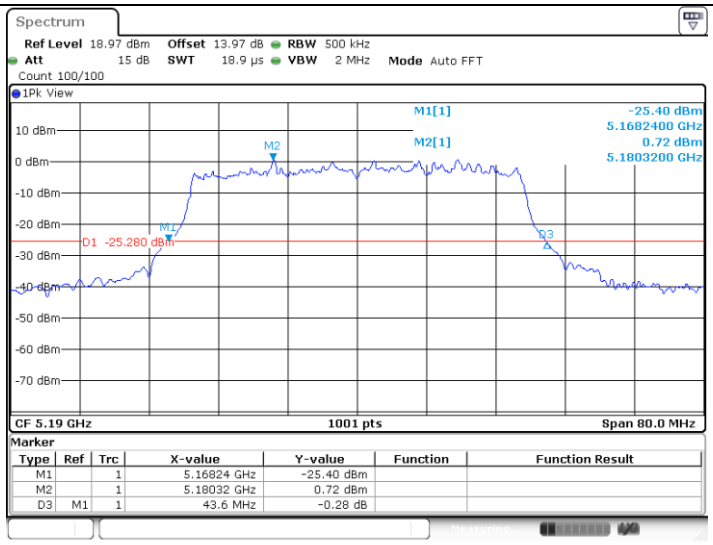
11AX20SISO_Ant1_5785



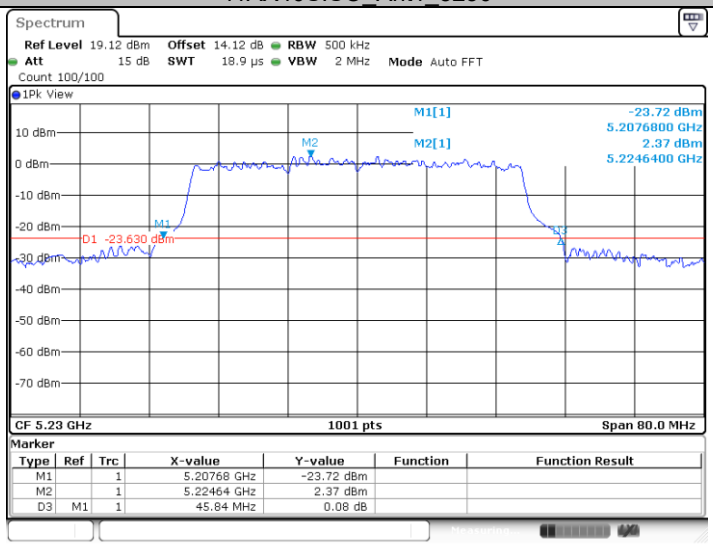
11AX20SISO_Ant1_5825



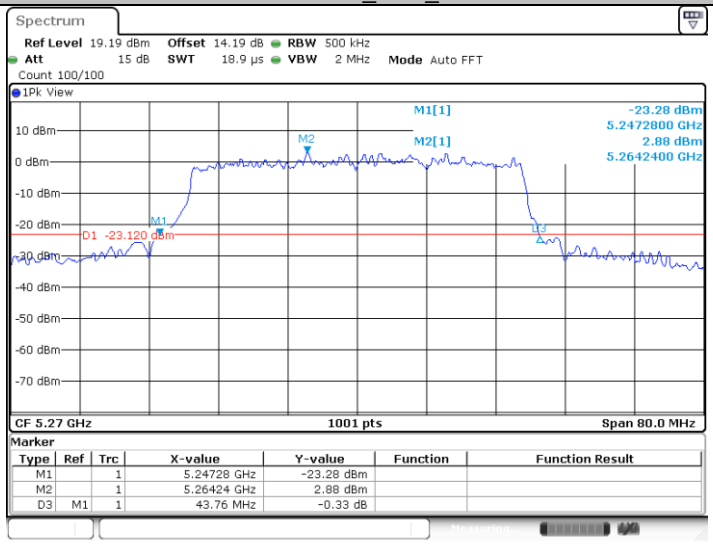
11AX40SISO_Ant1_5190



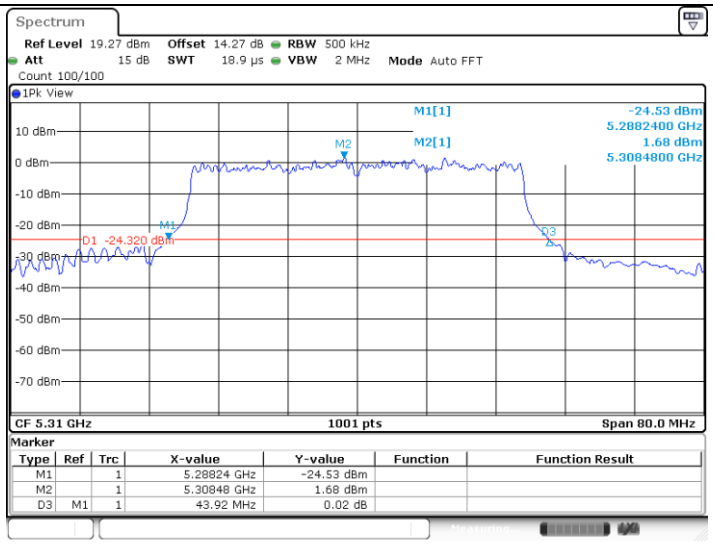
11AX40SISO_Ant1_5230



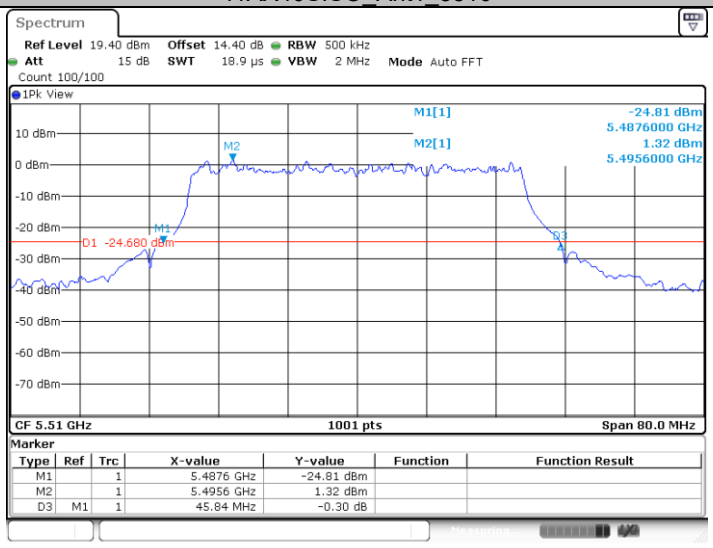
11AX40SISO_Ant1_5270



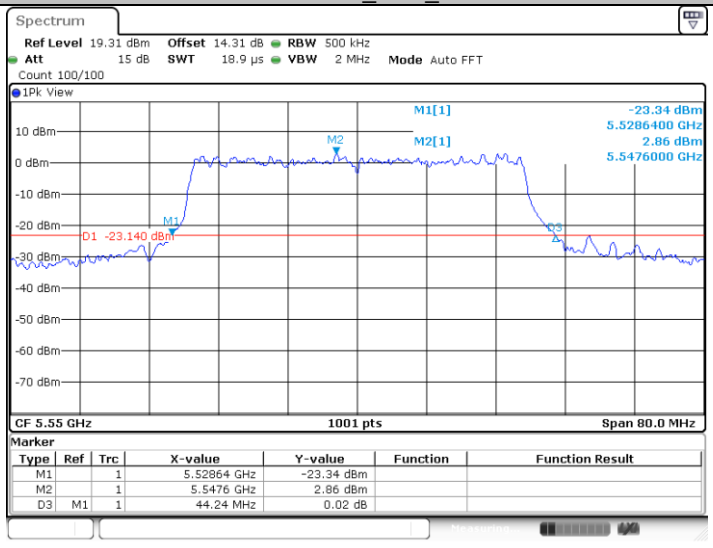
11AX40SISO_Ant1_5310



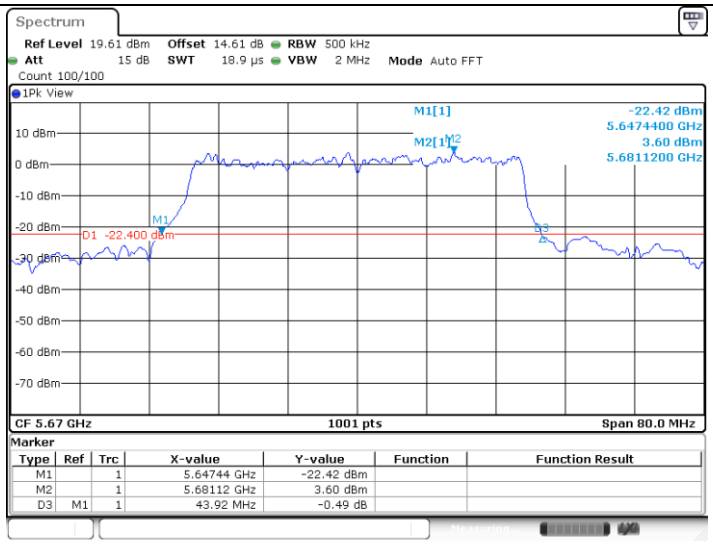
11AX40SISO_Ant1_5510



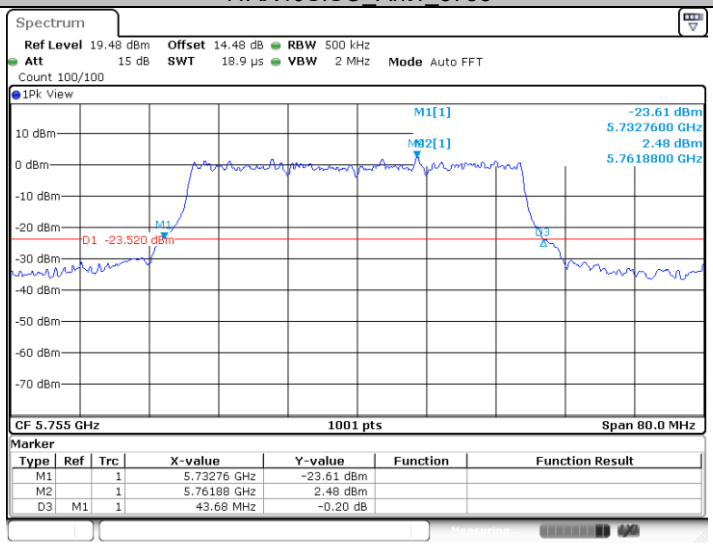
11AX40SISO_Ant1_5550



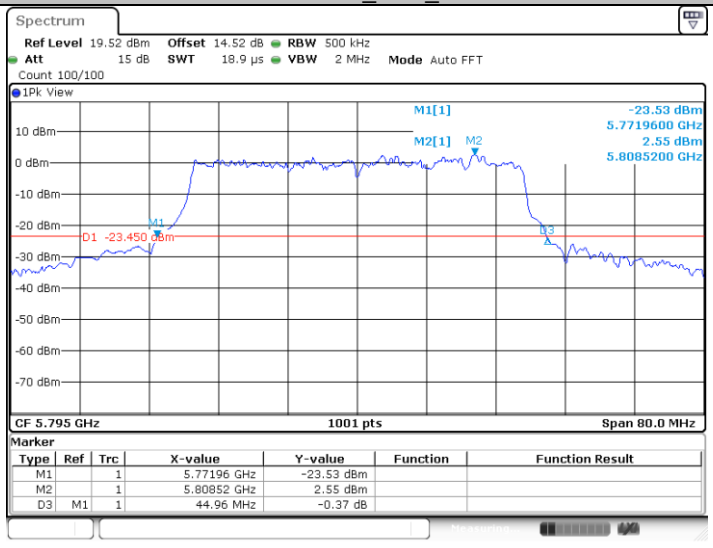
11AX40SISO_Ant1_5670



11AX40SISO_Ant1_5755

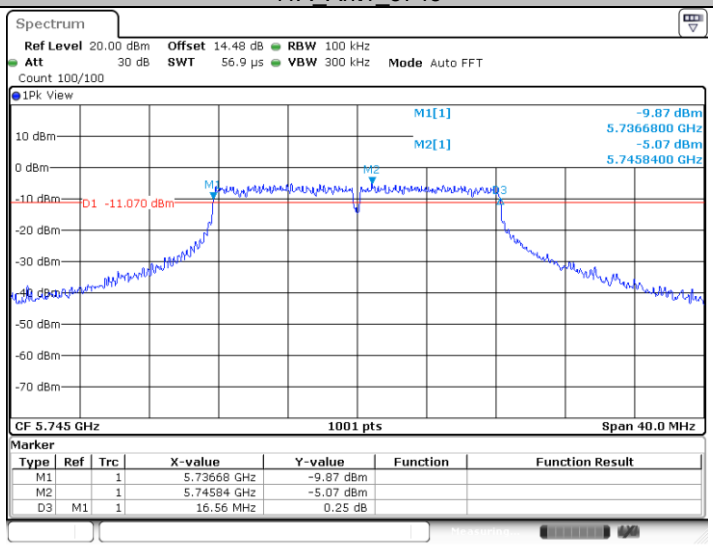


11AX40SISO_Ant1_5795

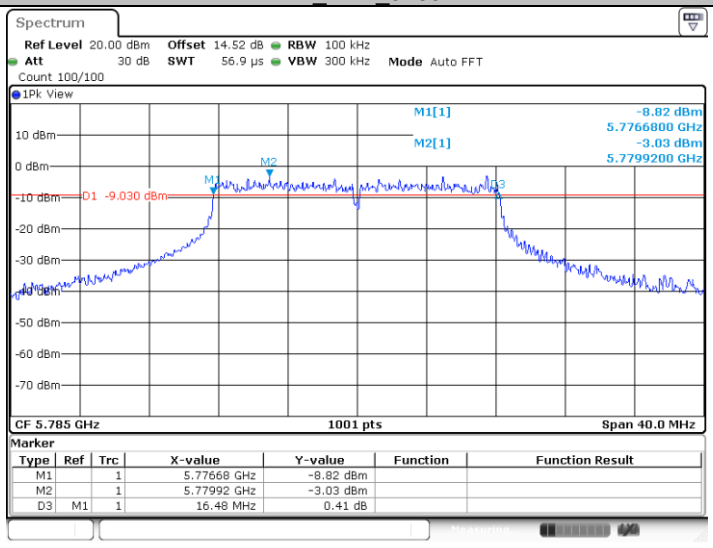


6dB Bandwidth:

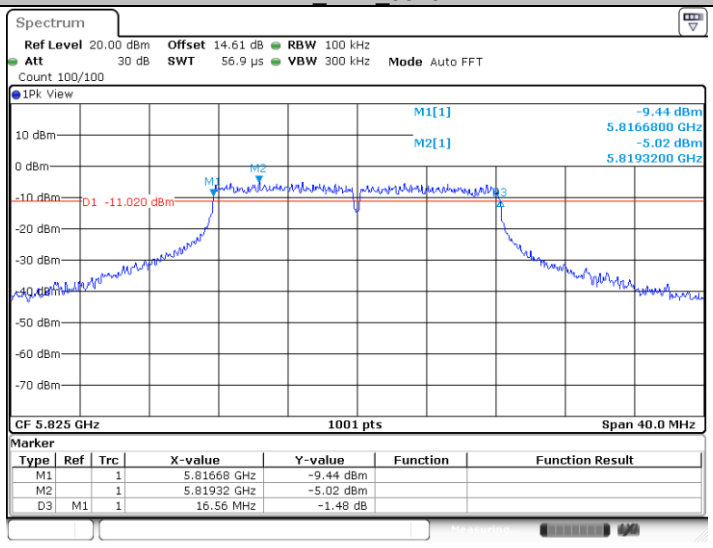
11A_Ant1_5745



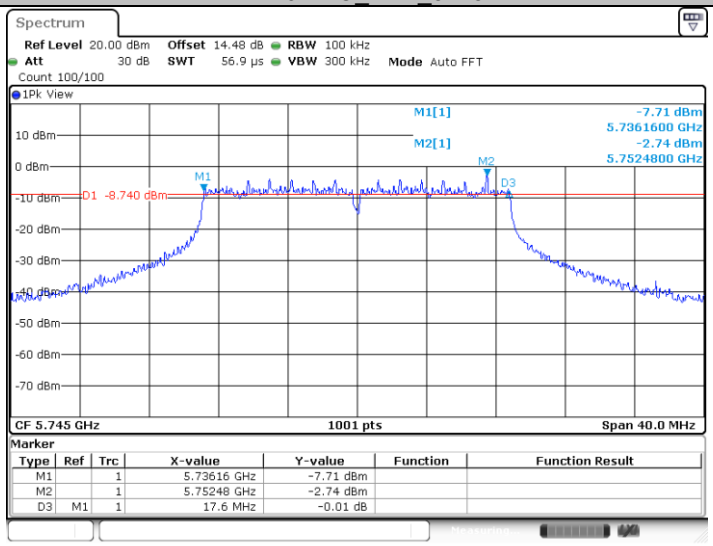
11A_Ant1_5785



11A_Ant1_5825

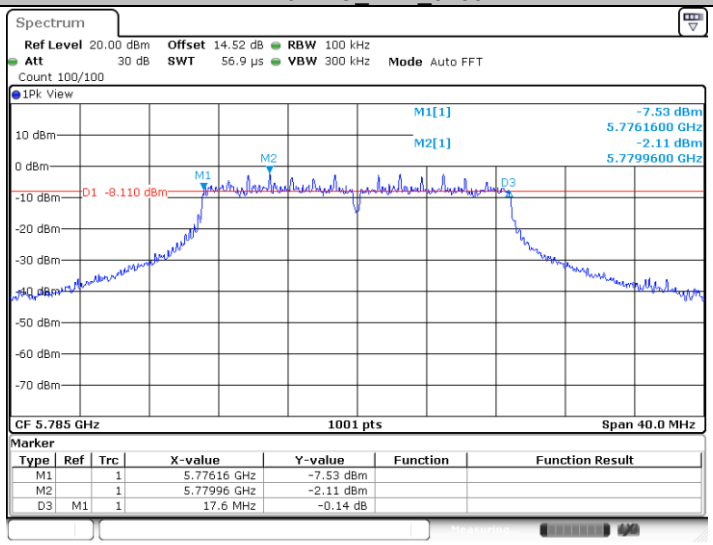


11N20SISO_Ant1_5745



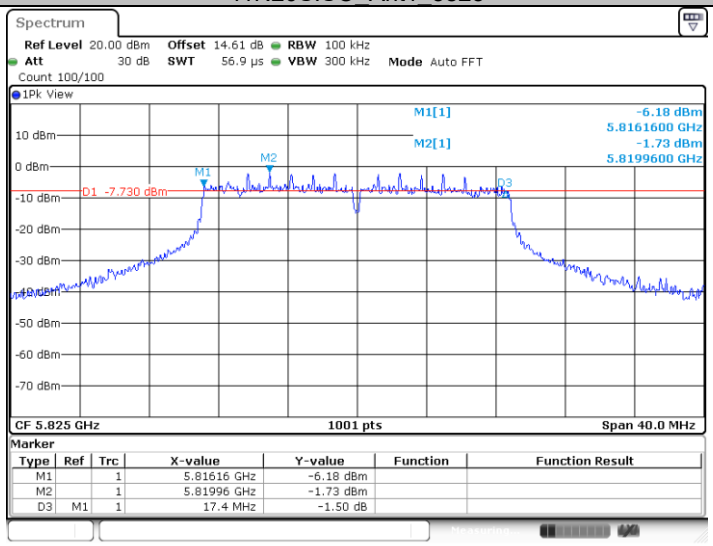
Date: 2.JUL.2025 09:05:04

11N20SISO_Ant1_5785



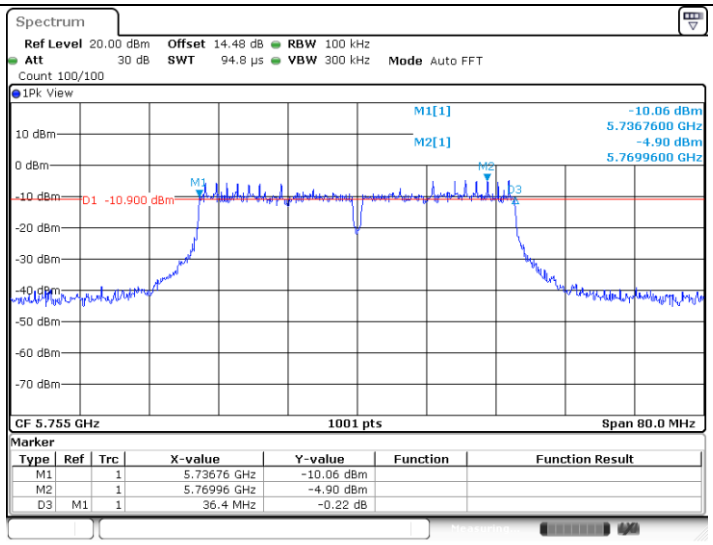
Date: 2.JUL.2025 09:07:23

11N20SISO_Ant1_5825

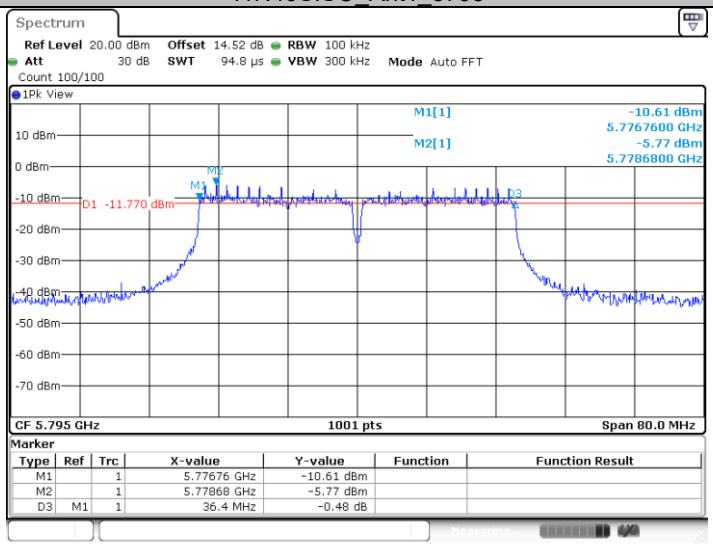


Date: 2.JUL.2025 09:10:05

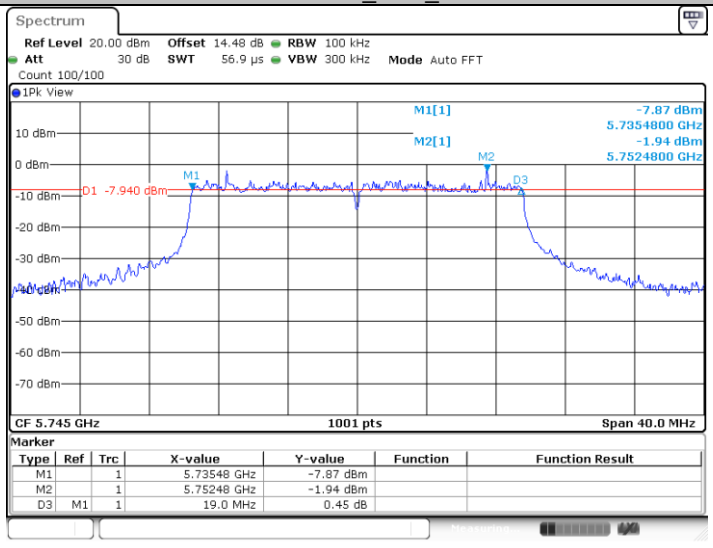
11N40SISO_Ant1_5755



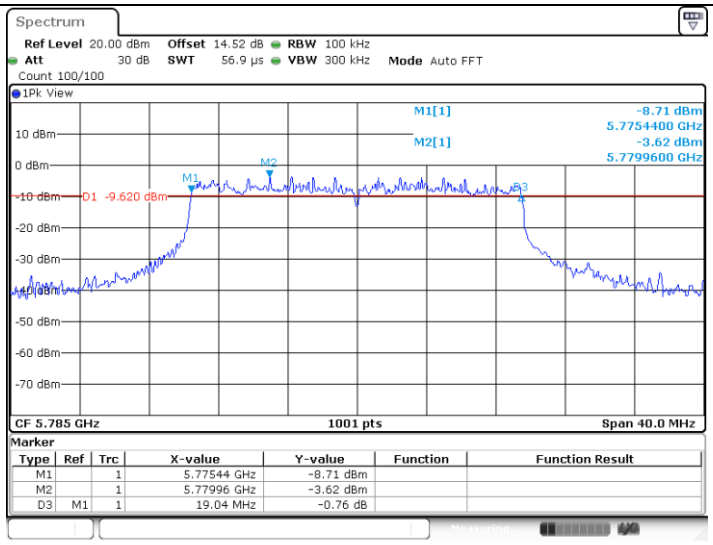
11N40SISO_Ant1_5795



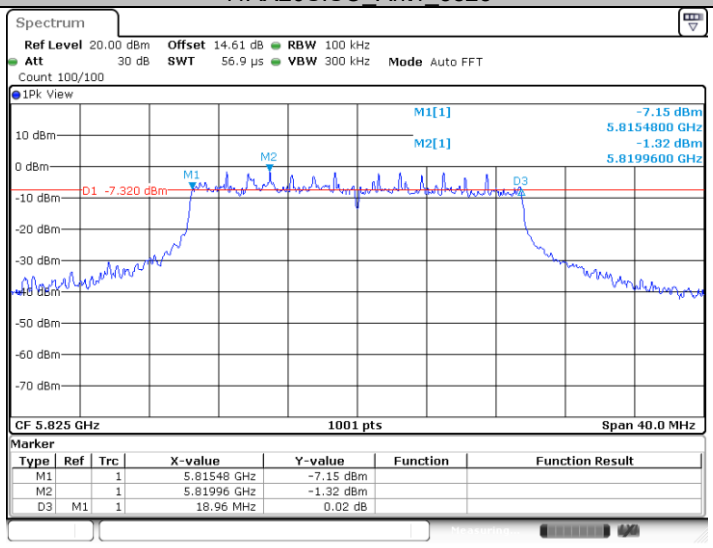
11AX20SISO_Ant1_5745



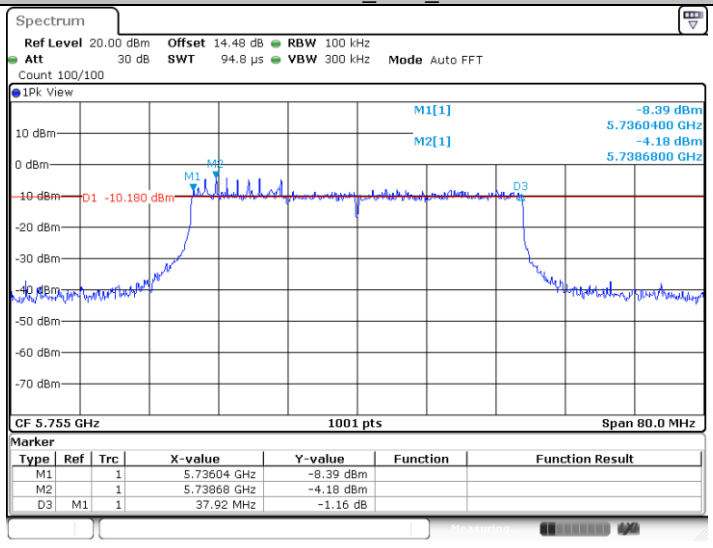
11AX20SISO_Ant1_5785



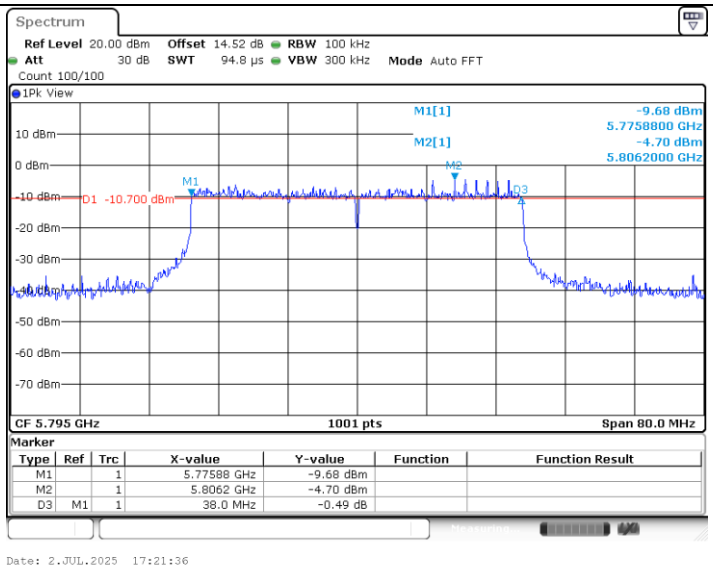
11AX20SISO_Ant1_5825



11AX40SISO_Ant1_5755



11AX40SISO_Ant1_5795



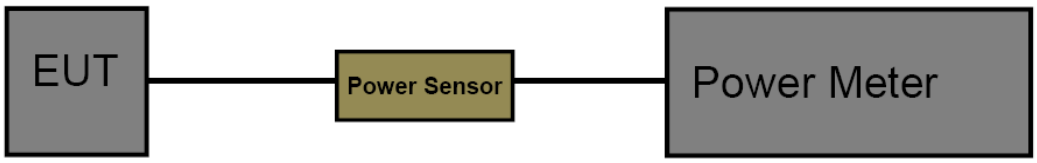
3.5. Peak Output Power

Limit

FCC CFR Title 47 Part 15 Subpart E Section 15.407(a)

Test Item	Limit	Frequency Range (MHz)
Conducted Output Power	Fixed: 1 Watt (30dBm) Mobile and Portable: 250mW (24dBm)	5150~5250
	250mW (24dBm)	5250~5350
	250mW (24dBm)	5500~5700
	1 Watt (30dBm)	5725~5850

Test Configuration



Test Procedure

The measurement is according to section 3 of KDB 789033 D02 General UNII Test Procedures New Rules V02r01.

Test Mode

Please refer to the clause 2.4.

Test Result

Test Mode	Antenna	Freq(MHz)	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	12.61	≤23.98	PASS
		5200	11.43	≤23.98	PASS
		5240	11.68	≤23.98	PASS
		5260	11.19	≤23.98	PASS
		5280	11.51	≤23.98	PASS
		5320	12.03	≤23.98	PASS
		5500	11.94	≤23.98	PASS
		5580	12.27	≤23.98	PASS
		5700	11.88	≤23.98	PASS
		5745	10.58	≤30.00	PASS
		5785	9.89	≤30.00	PASS
		5825	9.34	≤30.00	PASS
11N20SISO	Ant1	5180	10.72	≤23.98	PASS
		5200	11.05	≤23.98	PASS
		5240	11.57	≤23.98	PASS
		5260	10.27	≤23.98	PASS
		5280	10.45	≤23.98	PASS
		5320	12.09	≤23.98	PASS
		5500	10.85	≤23.98	PASS
		5580	12.23	≤23.98	PASS
		5700	12.41	≤23.98	PASS
		5745	9.32	≤30.00	PASS
		5785	9.31	≤30.00	PASS
		5825	9.46	≤30.00	PASS
11N40SISO	Ant1	5190	8.42	≤23.98	PASS
		5230	12.32	≤23.98	PASS
		5270	10.98	≤23.98	PASS
		5310	11.58	≤23.98	PASS
		5510	9.74	≤23.98	PASS
		5550	10.52	≤23.98	PASS
		5670	12.40	≤23.98	PASS
		5755	10.16	≤30.00	PASS
		5795	11.48	≤30.00	PASS
11AC20SISO	Ant1	5180	9.34	≤23.98	PASS
		5200	10.09	≤23.98	PASS
		5240	11.05	≤23.98	PASS
		5260	9.43	≤23.98	PASS
		5280	10.04	≤23.98	PASS
		5320	9.97	≤23.98	PASS
		5500	11.44	≤23.98	PASS
		5580	10.55	≤23.98	PASS
		5700	9.90	≤23.98	PASS
		5745	11.37	≤30.00	PASS
		5785	10.79	≤30.00	PASS
		5825	10.48	≤30.00	PASS
11AC40SISO	Ant1	5190	8.37	≤23.98	PASS
		5230	10.94	≤23.98	PASS
		5270	10.05	≤23.98	PASS
		5310	9.41	≤23.98	PASS
		5510	10.20	≤23.98	PASS
		5550	10.29	≤23.98	PASS
		5670	12.03	≤23.98	PASS
		5755	10.11	≤30.00	PASS
		5795	9.45	≤30.00	PASS
11AX20SISO	Ant1	5180	9.17	≤23.98	PASS
		5200	9.92	≤23.98	PASS
		5240	10.53	≤23.98	PASS
		5260	9.22	≤23.98	PASS
		5280	9.66	≤23.98	PASS
		5320	9.77	≤23.98	PASS
		5500	10.74	≤23.98	PASS

		5580	12.01	≤23.98	PASS
		5700	10.56	≤23.98	PASS
		5745	10.14	≤30.00	PASS
		5785	9.55	≤30.00	PASS
		5825	10.08	≤30.00	PASS
11AX40SISO	Ant1	5190	8.36	≤23.98	PASS
		5230	11.83	≤23.98	PASS
		5270	10.44	≤23.98	PASS
		5310	10.13	≤23.98	PASS
		5510	9.80	≤23.98	PASS
		5550	11.52	≤23.98	PASS
		5670	12.98	≤23.98	PASS
		5755	11.84	≤30.00	PASS
		5795	11.00	≤30.00	PASS

3.6. Power Spectral Density

Limit

FCC CFR Title 47 Part 15 Subpart E Section 15.407(a)

For the 5.15~5.25GHz band:

- Outdoor AP

  The peak power spectral density (PSD) shall not exceed the lesser of 17dBm/MHz.
  If G_{Tx}>6dBi, then PSD =17-(G_{Tx}-6).
- Indoor AP

  The peak power spectral density (PSD) shall not exceed the lesser of 17dBm/MHz.
  If G_{Tx}>6dBi, then PSD =17-(G_{Tx}-6).
- Point-to-point AP

  The peak power spectral density (PSD) shall not exceed the lesser of 17dBm/MHz.
  If G_{Tx}>23dBi, then PSD =17-(G_{Tx}-23).
- Client devices

  The peak power spectral density (PSD) shall not exceed the lesser of 11dBm/MHz.
  If G_{Tx}>6dBi, then PSD =11-(G_{Tx}-6).

For the 5.25~5.35GHz band:

The peak power spectral density (PSD) shall not exceed the lesser of 11dBm/MHz.
If G_{Tx}>6dBi, then PSD =11-(G_{Tx}-6).

For the 5.47~5.725GHz band:

The peak power spectral density (PSD) shall not exceed the lesser of 11dBm/MHz.
If G_{Tx}>6dBi, then PSD =11-(G_{Tx}-6).

For the 5.725~5.85GHz band:

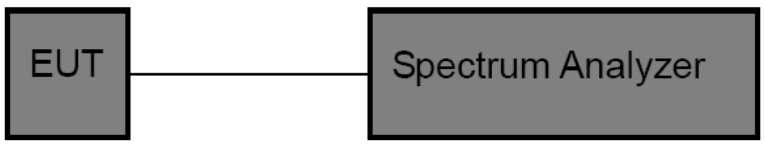
- Point-to-multipoint systems (P2M)

  The peak power spectral density (PSD) shall not exceed the lesser of 30dBm/500kHz.
  If G_{Tx}>6dBi, then PSD =30-(G_{Tx}-6).
- Point-to-point systems (P2P)

  The peak power spectral density (PSD) shall not exceed the lesser of 30dBm/500kHz.

Note: G_{Tx}: EUT Antenna gain.

Test Configuration



Test Procedure

The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above. The measurement is according to KDB 789033 D02 General UNII Test Procedures New Rules V02r01.

(1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.

(2) Set analyzer center frequency to transmitting frequency.

(3) Set the span to encompass the entire emissions bandwidth (EBW) (alternatively, the entire 99% OBW) of the signal.

(4) RBW=1MHz for devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz
RBW=500kHz for devices operating in the band 5.725-5.85 GHz.
(5) Set the VBW to: ≥ 3 RBW
(6) Detector: AVG
(7) Trace: Max Hold and View
(7) Sweep time: auto
(8) Trace average at least 100 traces in power averaging.
(9) User the peak marker function to determine the maximum amplitude level within the RBW. Apply correction to the result if different RBW is used.

NOTE: The EUT was set to continuously transmitting in each mode and low, middle and high channel for the test.

Test Mode

Please refer to the clause 2.4.

Test Result

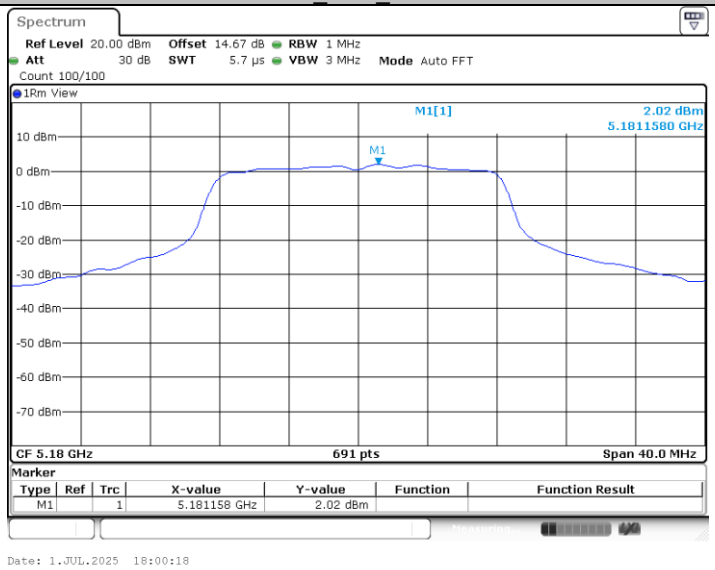
TestMode	Antenna	Freq(MHz)	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5180	2.02	≤11.00	PASS
		5200	0.76	≤11.00	PASS
		5240	0.82	≤11.00	PASS
		5260	0.13	≤11.00	PASS
		5280	0.59	≤11.00	PASS
		5320	0.75	≤11.00	PASS
		5500	0.40	≤11.00	PASS
		5580	0.78	≤11.00	PASS
		5700	0.63	≤11.00	PASS
		5745	-3.69	≤30.00	PASS
		5785	-4.41	≤30.00	PASS
		5825	-4.92	≤30.00	PASS
11N20SISO	Ant1	5180	-0.39	≤11.00	PASS
		5200	-0.31	≤11.00	PASS
		5240	0.38	≤11.00	PASS
		5260	-1.40	≤11.00	PASS
		5280	-0.70	≤11.00	PASS
		5320	1.14	≤11.00	PASS
		5500	-0.85	≤11.00	PASS
		5580	0.38	≤11.00	PASS
		5700	0.61	≤11.00	PASS
		5745	-5.36	≤30.00	PASS
		5785	-5.23	≤30.00	PASS
		5825	-5.20	≤30.00	PASS
11N40SISO	Ant1	5190	-5.49	≤11.00	PASS
		5230	-1.47	≤11.00	PASS
		5270	-3.64	≤11.00	PASS
		5310	-2.64	≤11.00	PASS
		5510	-4.43	≤11.00	PASS
		5550	-3.48	≤11.00	PASS
		5670	-2.18	≤11.00	PASS
		5755	-7.52	≤30.00	PASS
		5795	-5.79	≤30.00	PASS
11AX20SISO	Ant1	5180	-2.58	≤11.00	PASS
		5200	-1.75	≤11.00	PASS
		5240	-1.04	≤11.00	PASS
		5260	-2.29	≤11.00	PASS
		5280	-1.94	≤11.00	PASS
		5320	-1.72	≤11.00	PASS
		5500	-1.42	≤11.00	PASS
		5580	0.71	≤11.00	PASS
		5700	-1.12	≤11.00	PASS
		5745	-4.46	≤30.00	PASS
		5785	-5.11	≤30.00	PASS
		5825	-4.69	≤30.00	PASS
11AX40SISO	Ant1	5190	-5.51	≤11.00	PASS
		5230	-2.32	≤11.00	PASS
		5270	-3.64	≤11.00	PASS
		5310	-3.79	≤11.00	PASS
		5510	-4.69	≤11.00	PASS
		5550	-2.72	≤11.00	PASS
		5670	-1.34	≤11.00	PASS
		5755	-5.52	≤30.00	PASS
		5795	-6.50	≤30.00	PASS

Note：1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

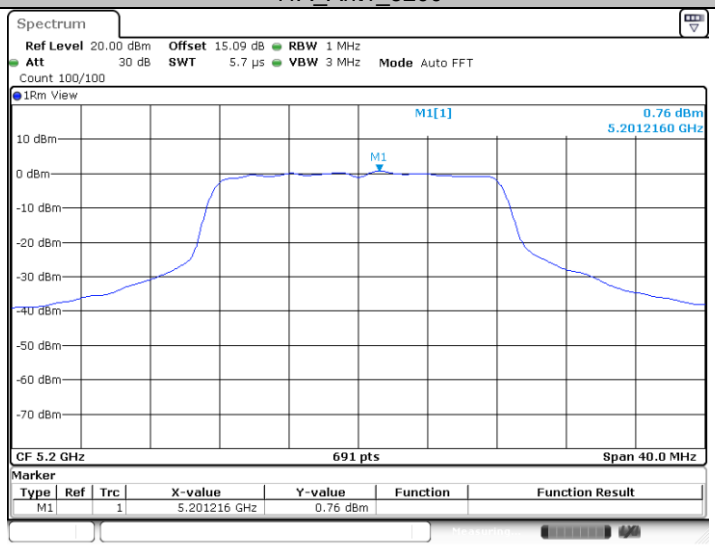
2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

Test plot as follows:

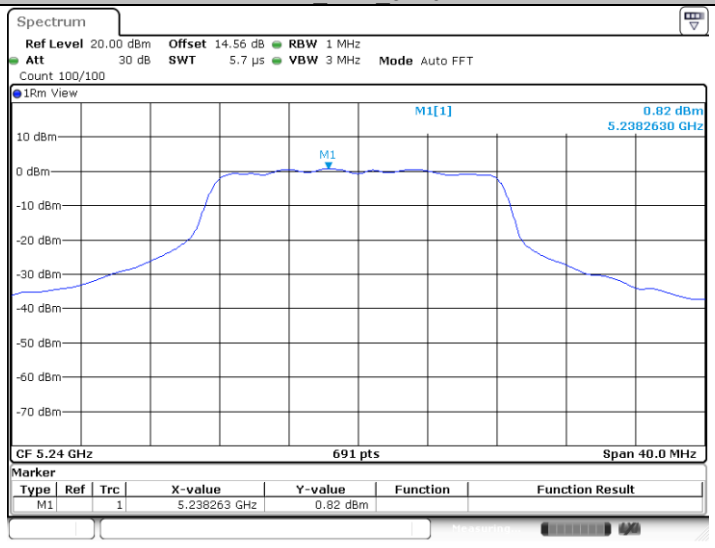
11A_Ant1_5180



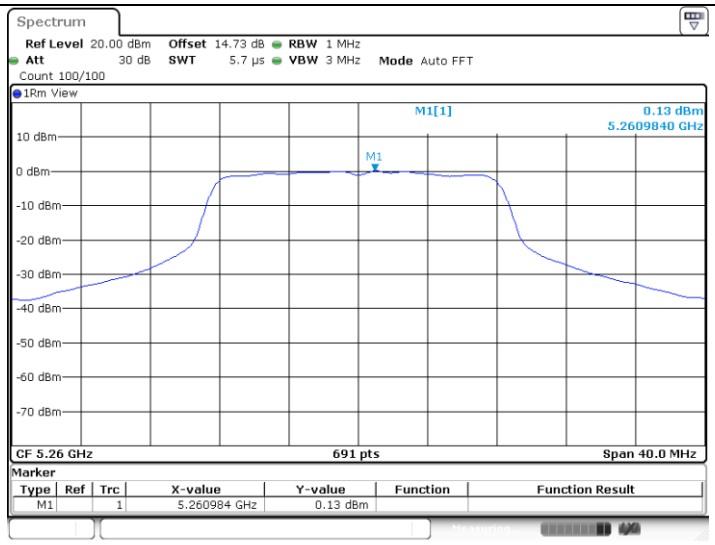
11A_Ant1_5200



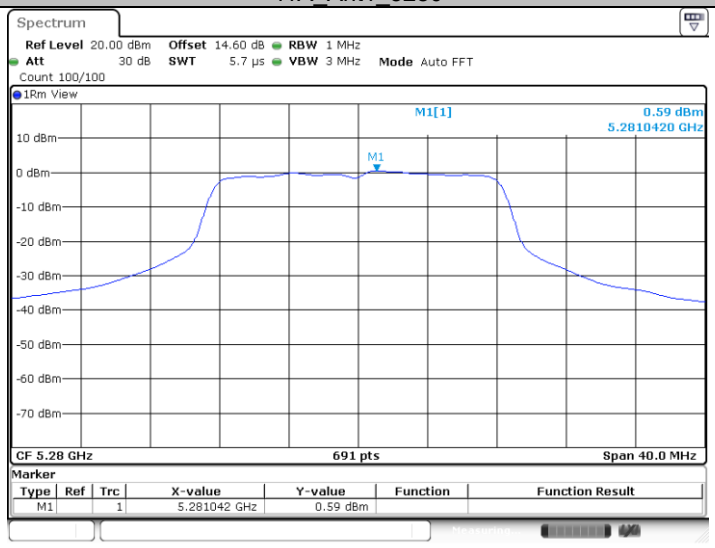
11A_Ant1_5240



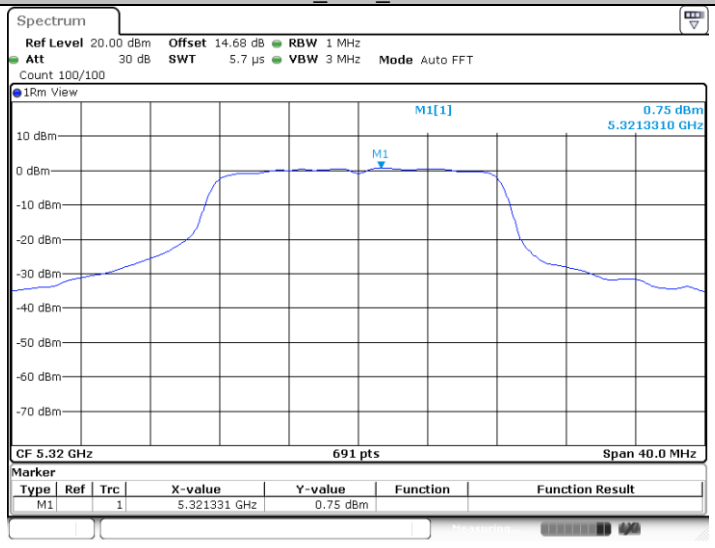
11A_Ant1_5260



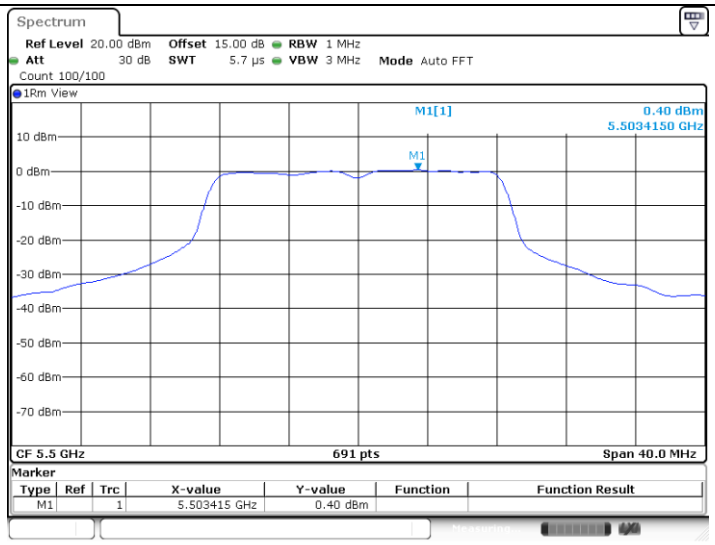
11A_Ant1_5280



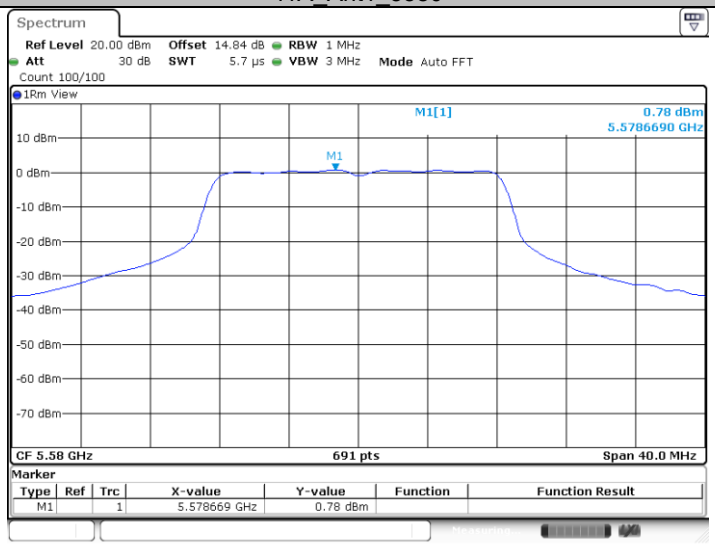
11A_Ant1_5320



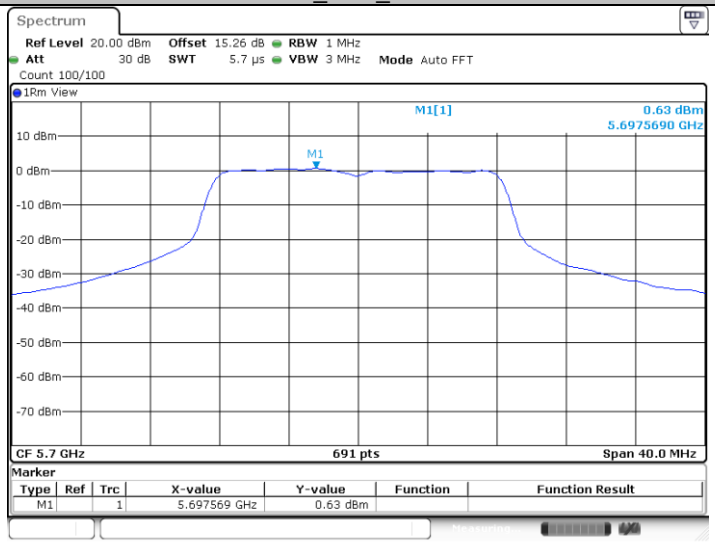
11A_Ant1_5500



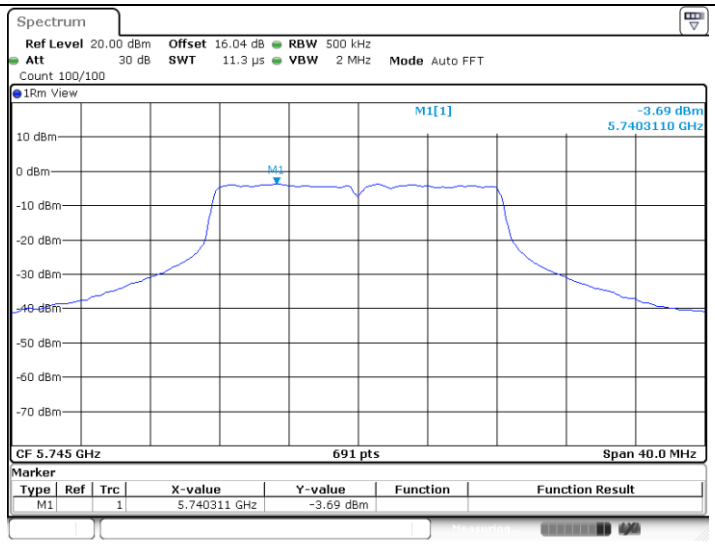
11A_Ant1_5580



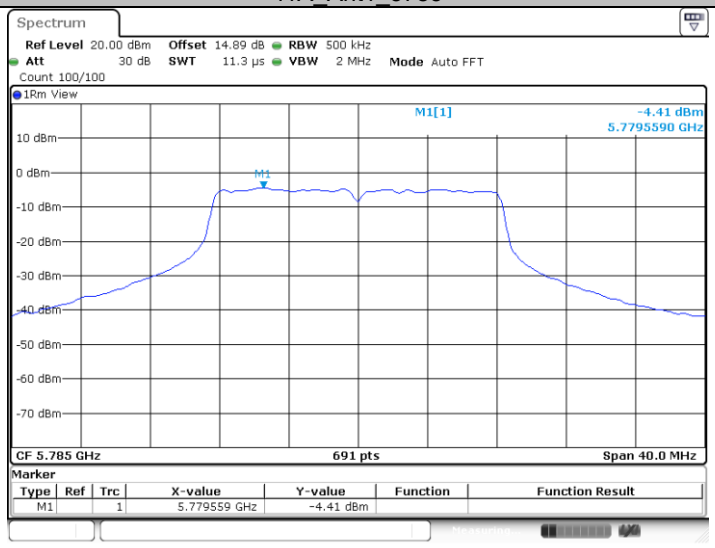
11A_Ant1_5700



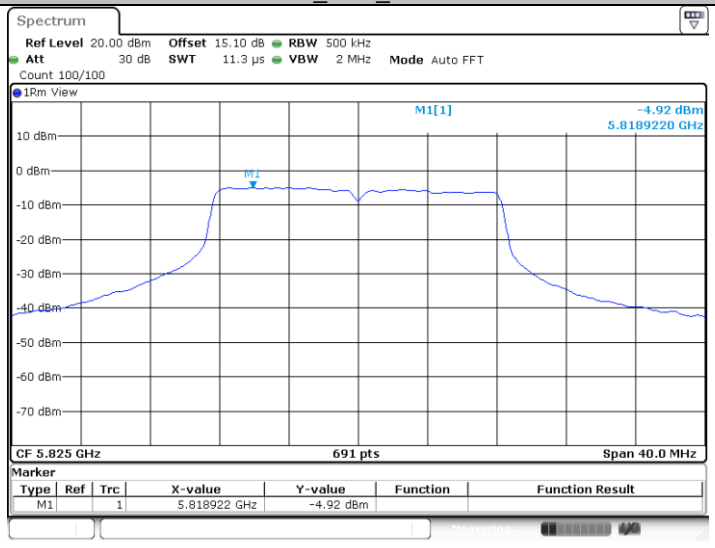
11A_Ant1_5745



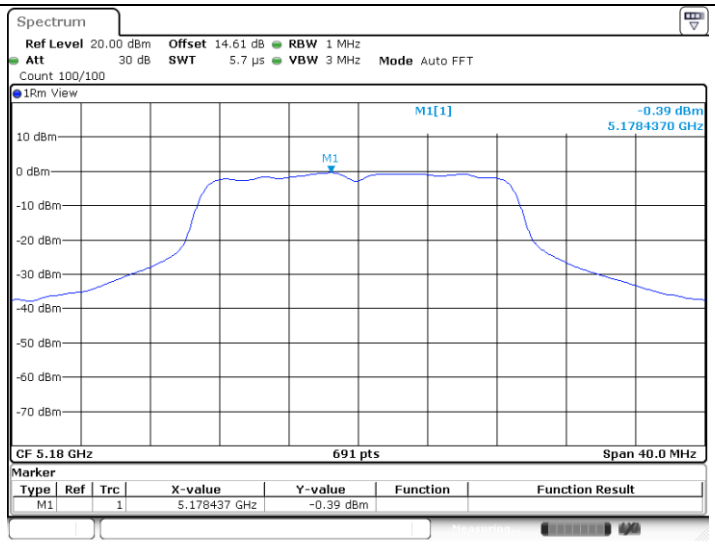
11A_Ant1_5785



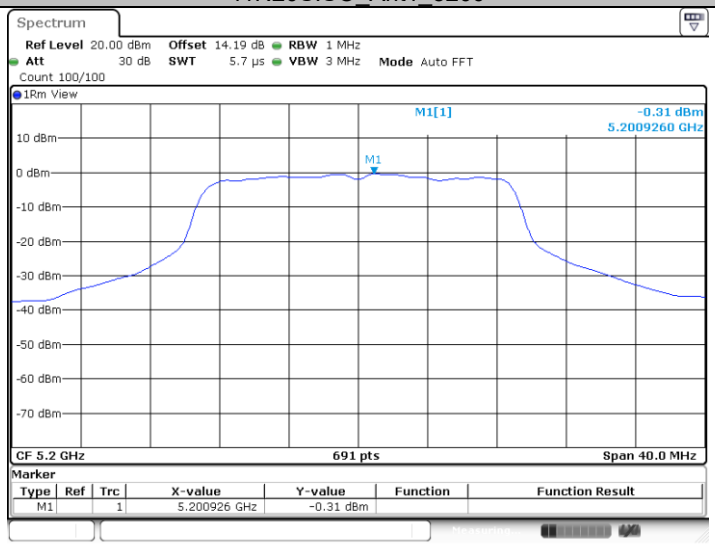
11A_Ant1_5825



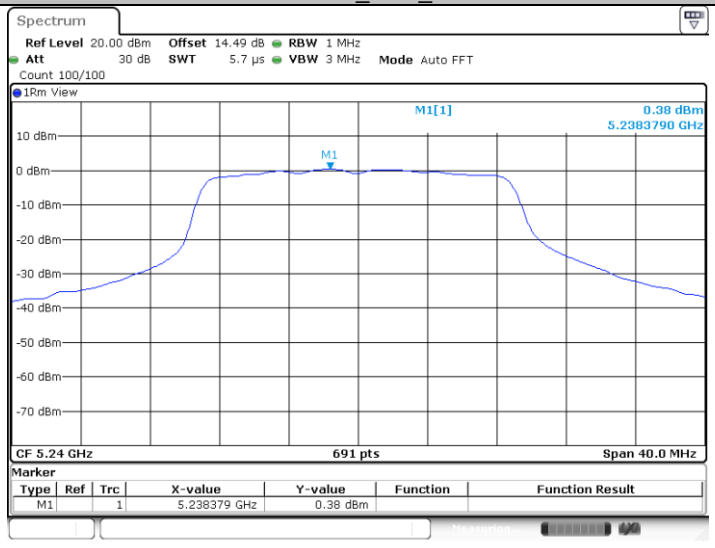
11N20SISO_Ant1_5180



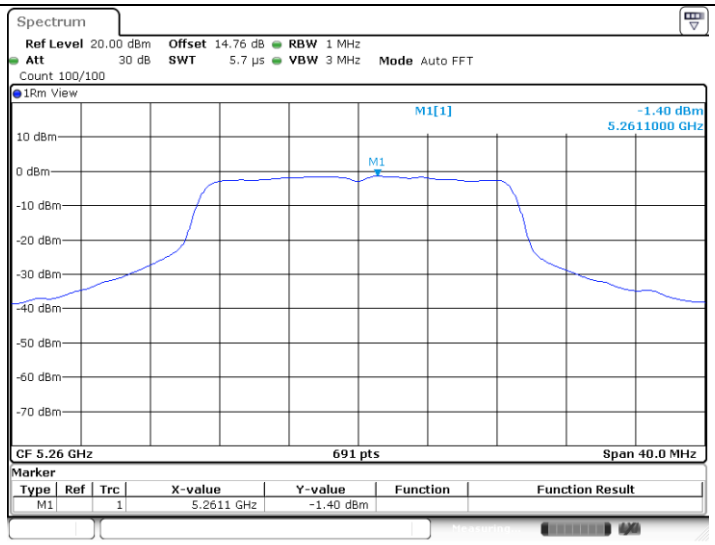
11N20SISO_Ant1_5200



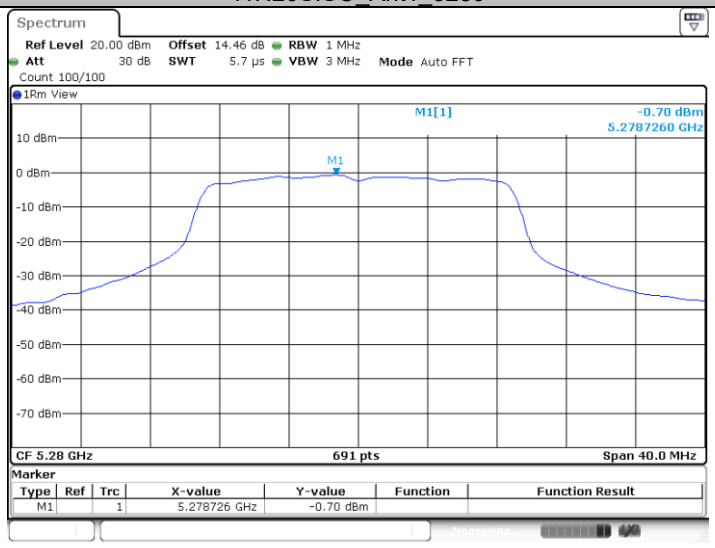
11N20SISO_Ant1_5240



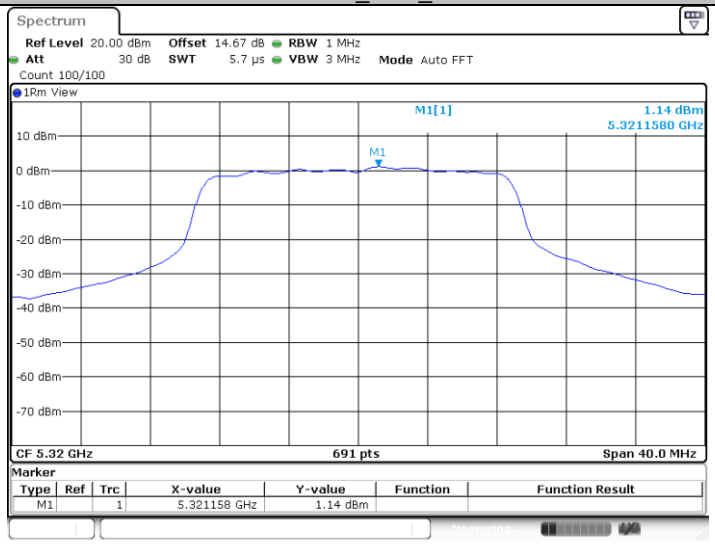
11N20SISO_Ant1_5260



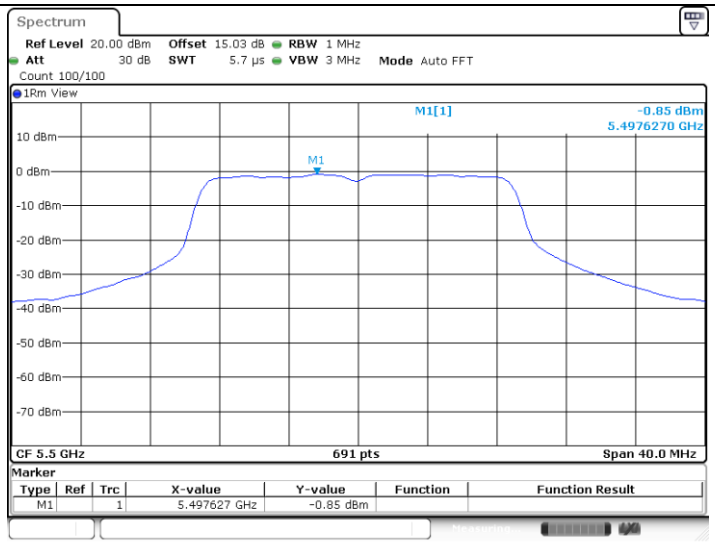
11N20SISO_Ant1_5280



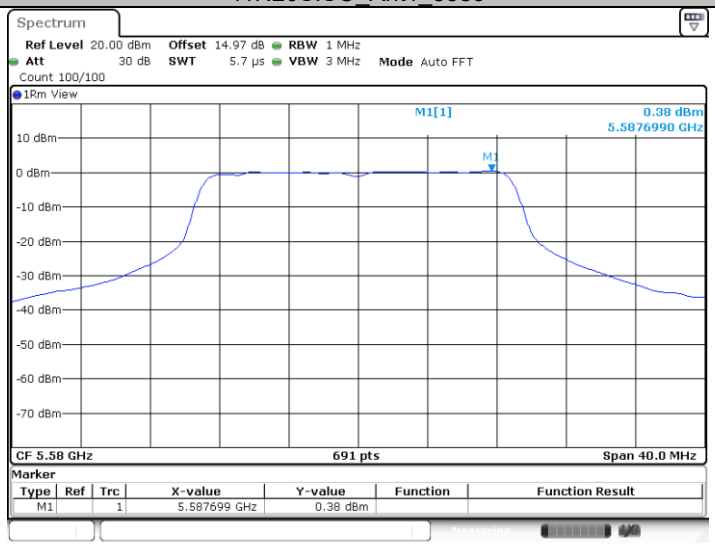
11N20SISO_Ant1_5320



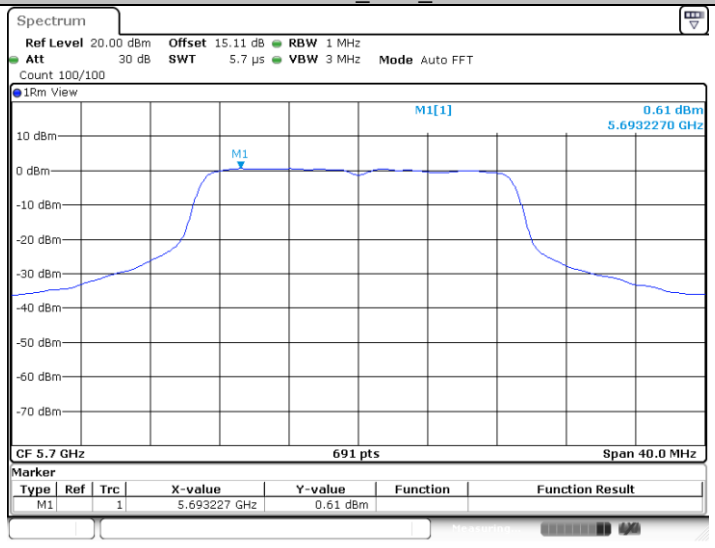
11N20SISO_Ant1_5500



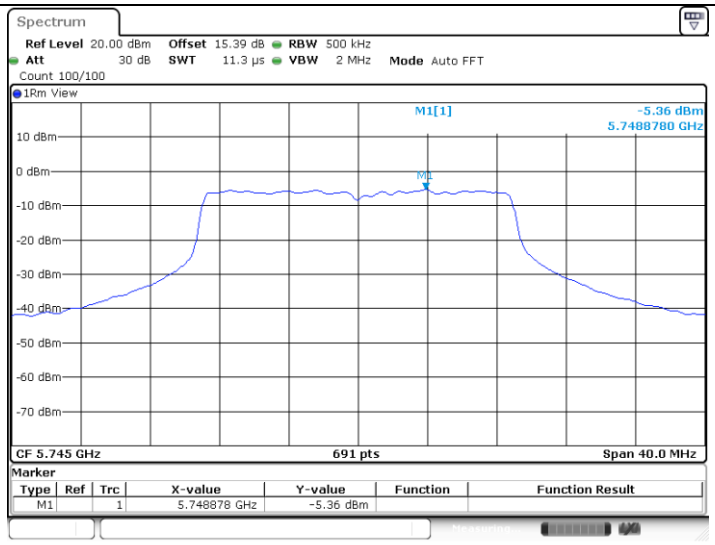
11N20SISO_Ant1_5580



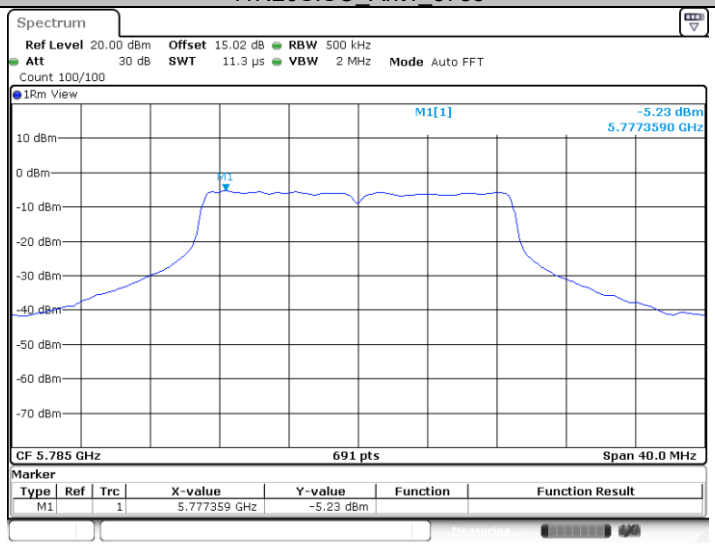
11N20SISO_Ant1_5700



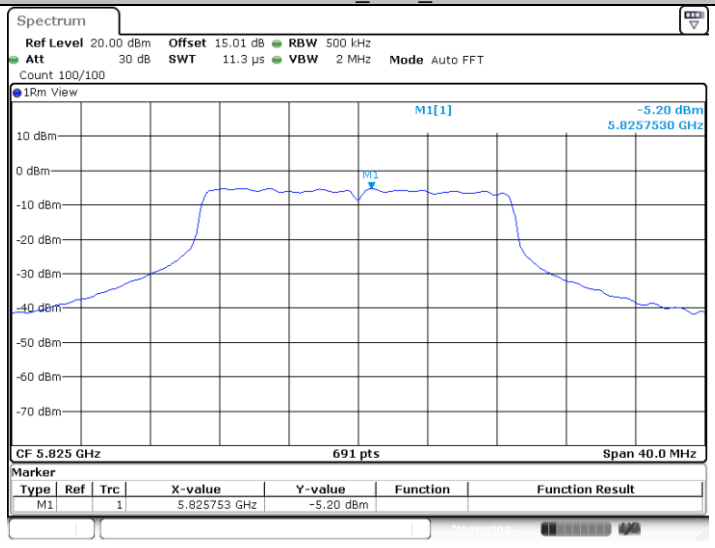
11N20SISO_Ant1_5745



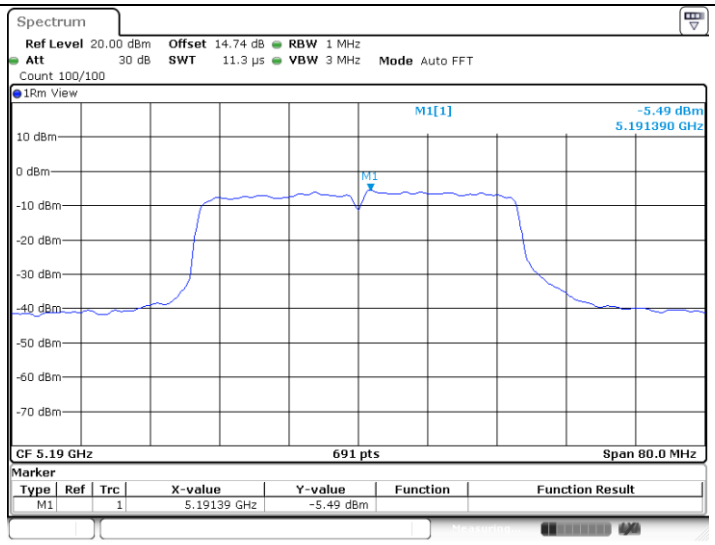
11N20SISO_Ant1_5785



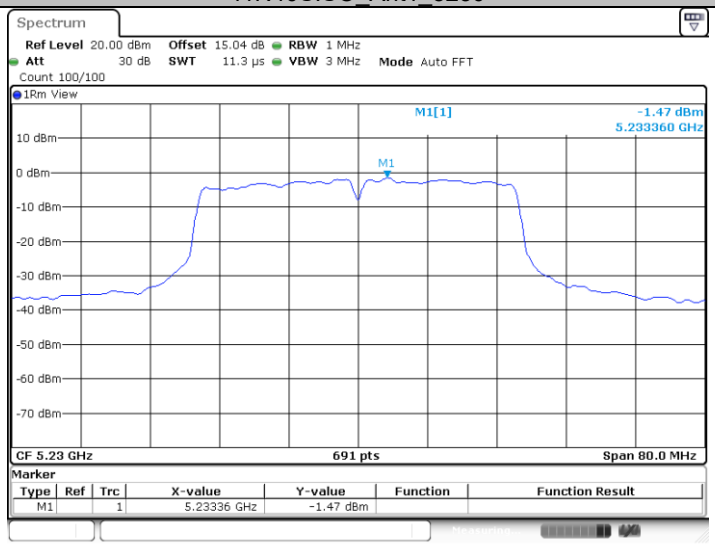
11N20SISO_Ant1_5825



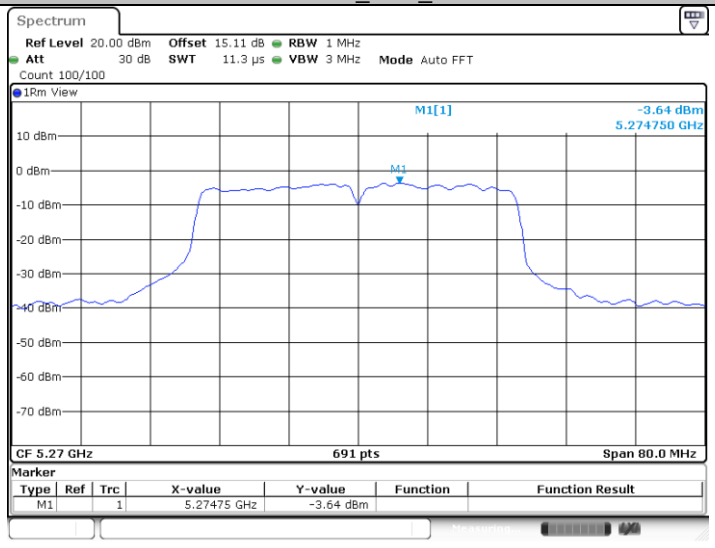
11N40SISO_Ant1_5190



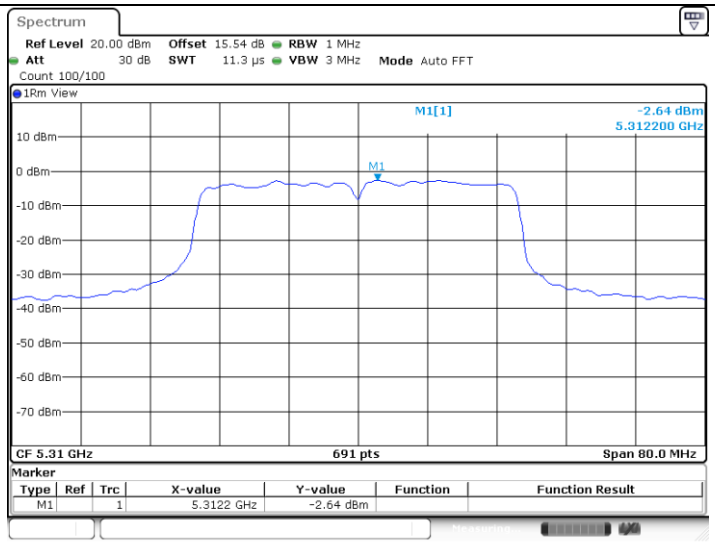
11N40SISO_Ant1_5230



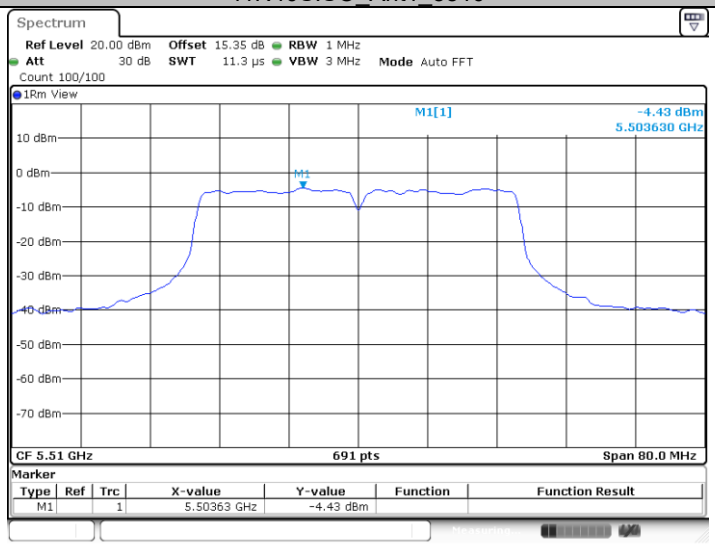
11N40SISO_Ant1_5270



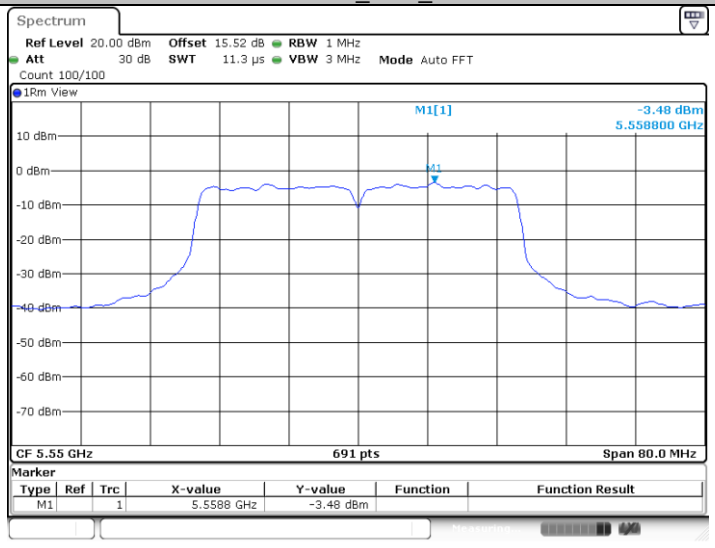
11N40SISO_Ant1_5310



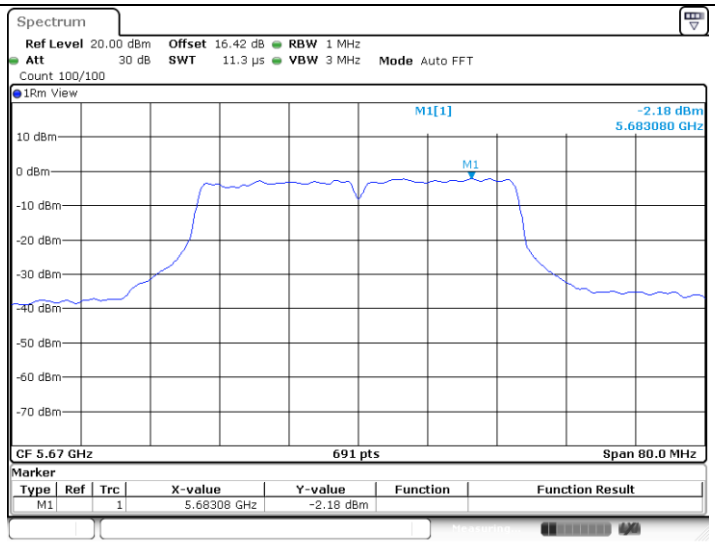
11N40SISO_Ant1_5510



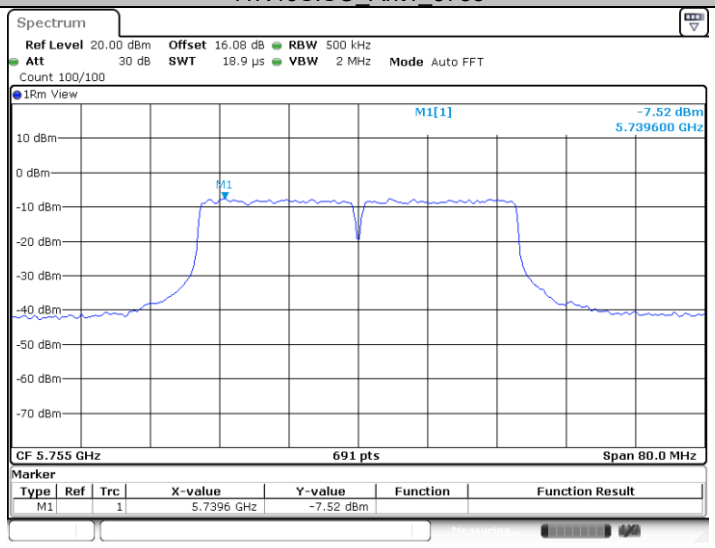
11N40SISO_Ant1_5550



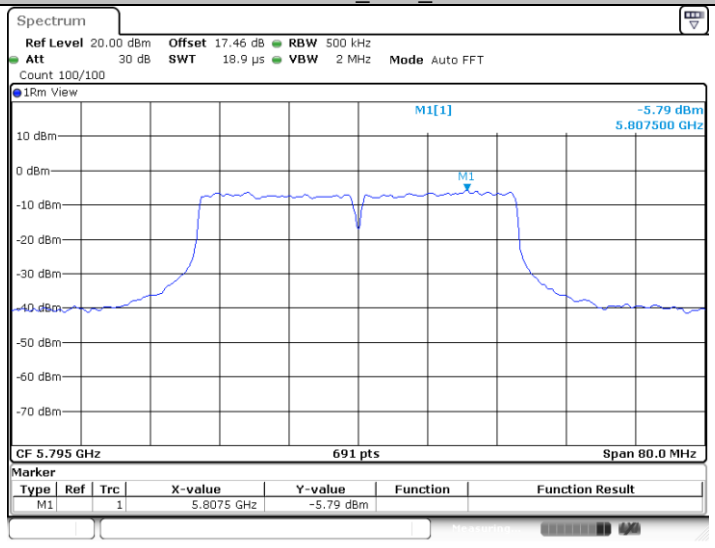
11N40SISO_Ant1_5670



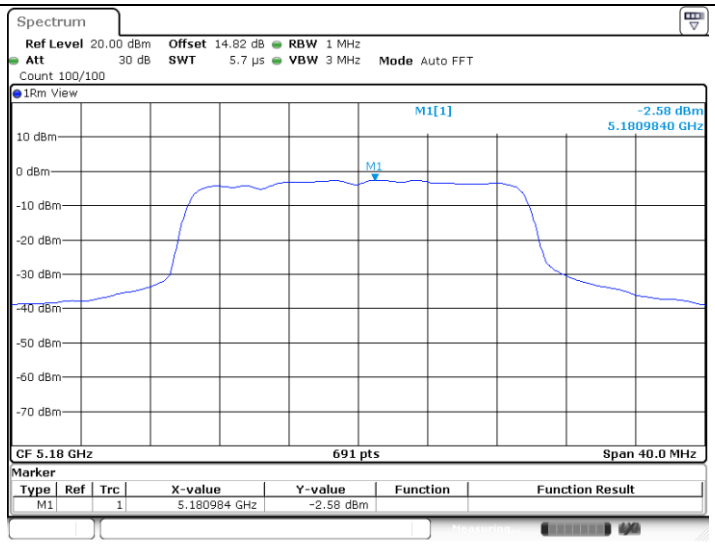
11N40SISO_Ant1_5755



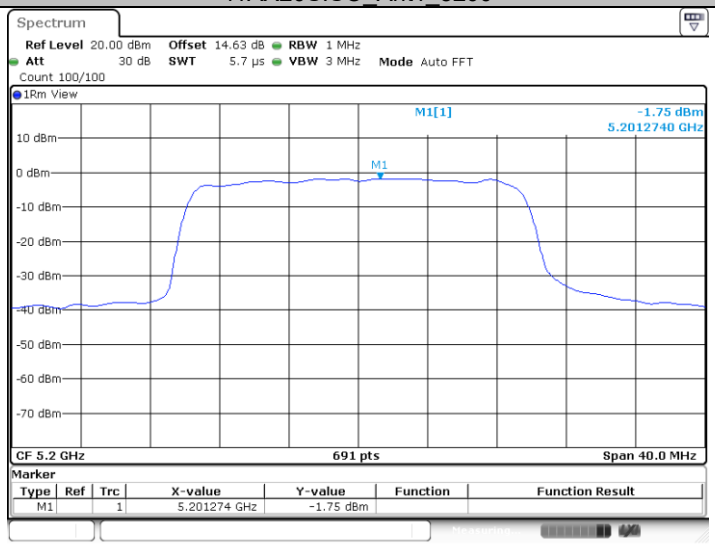
11N40SISO_Ant1_5795



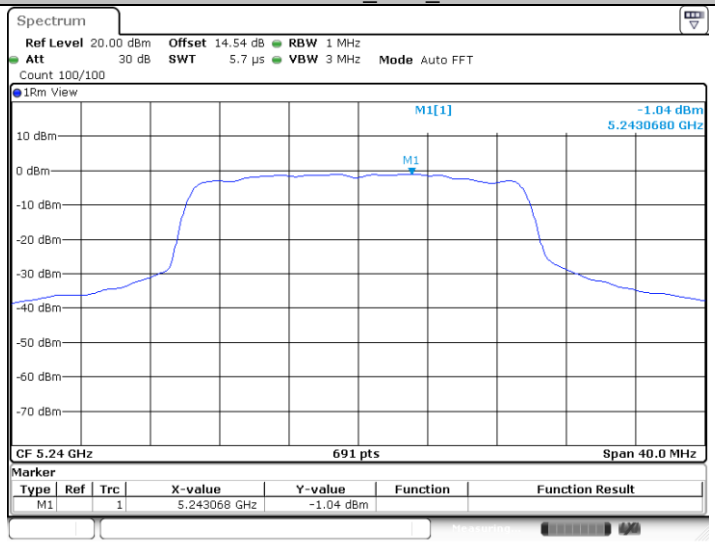
11AX20SISO_Ant1_5180



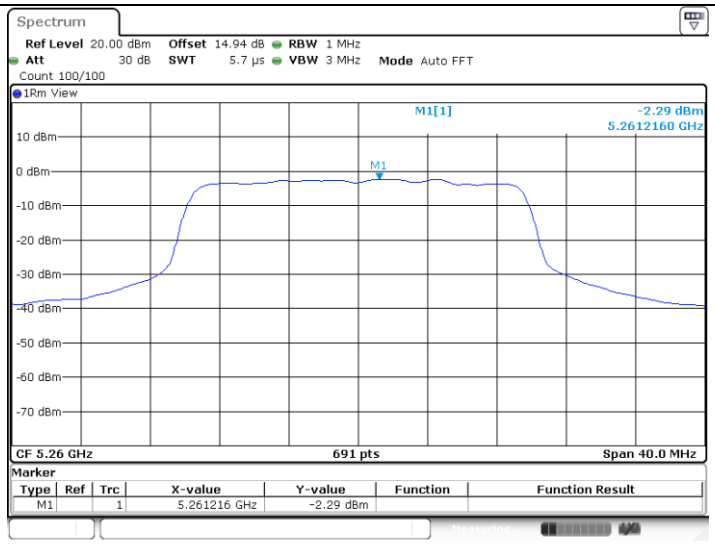
11AX20SISO_Ant1_5200



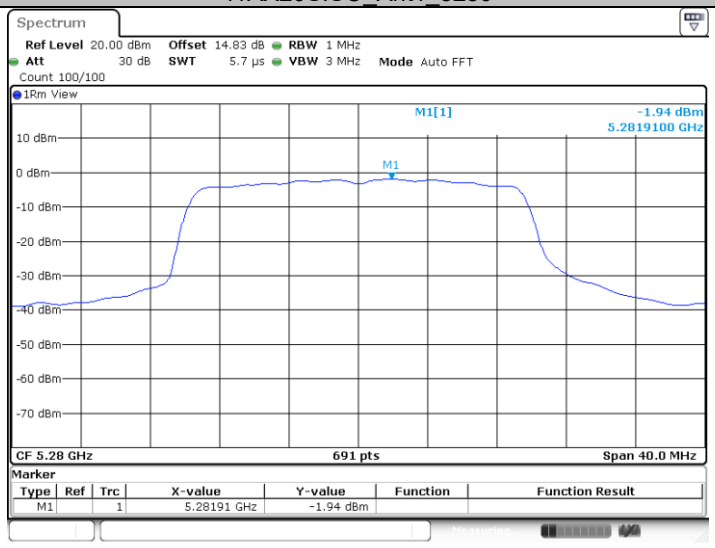
11AX20SISO_Ant1_5240



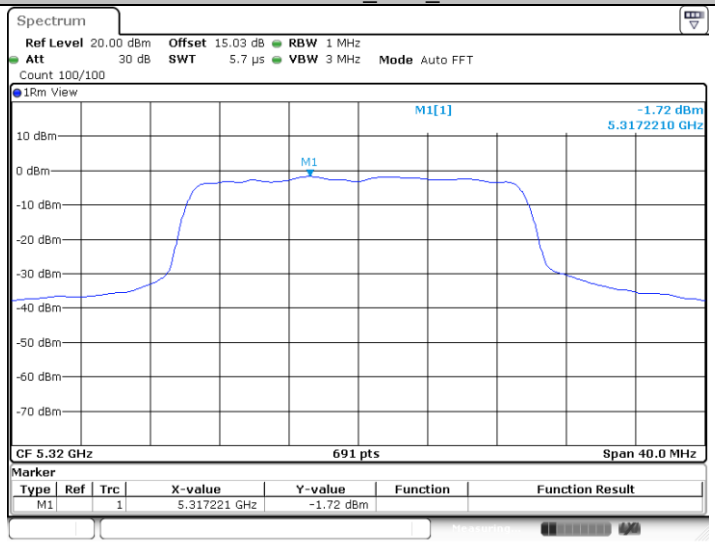
11AX20SISO_Ant1_5260



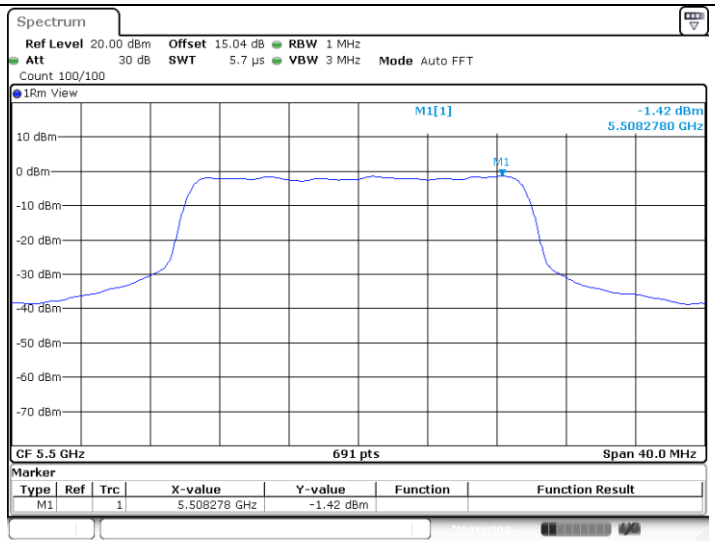
11AX20SISO_Ant1_5280



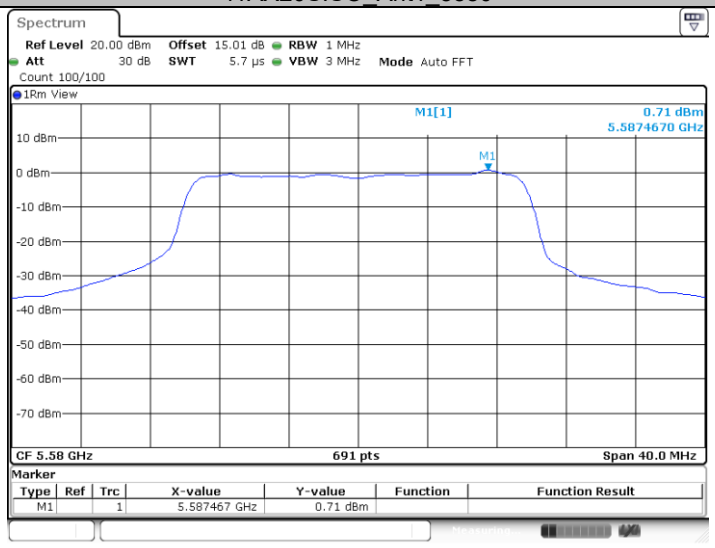
11AX20SISO_Ant1_5320



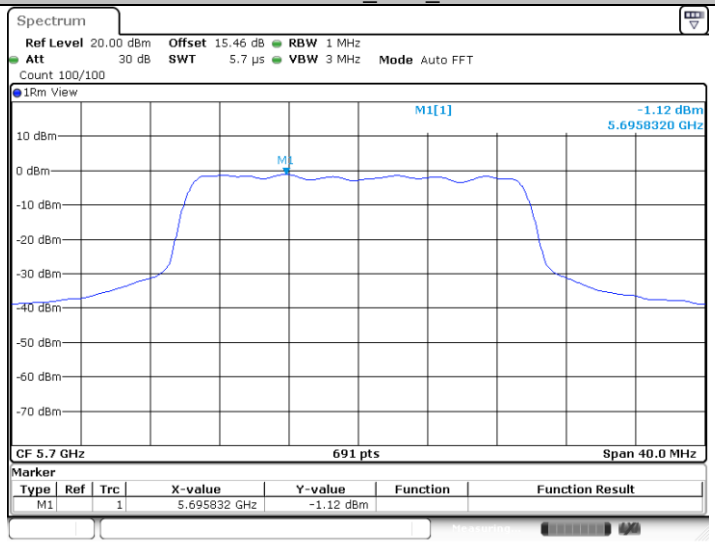
11AX20SISO_Ant1_5500



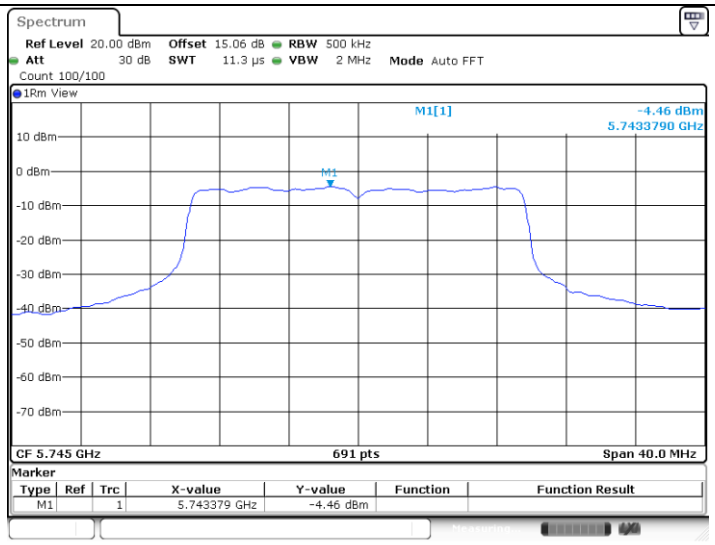
11AX20SISO_Ant1_5580



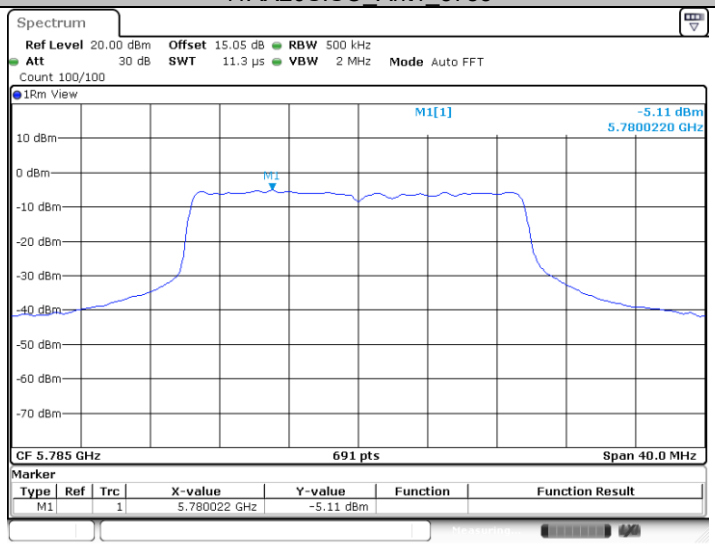
11AX20SISO_Ant1_5700



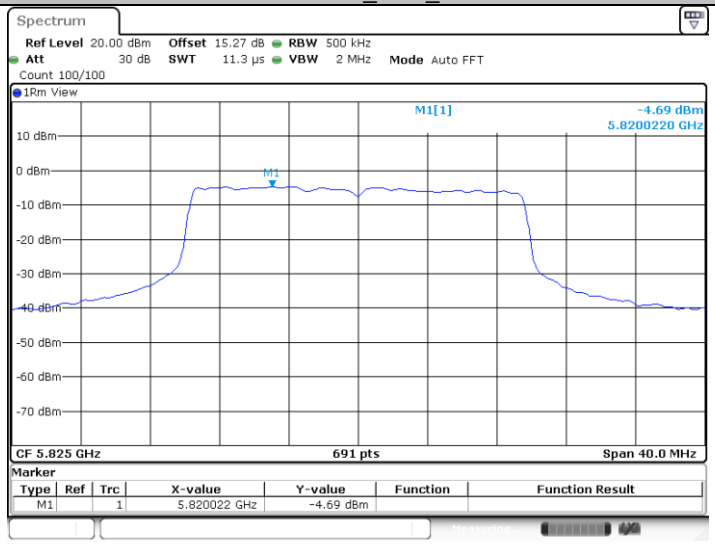
11AX20SISO_Ant1_5745



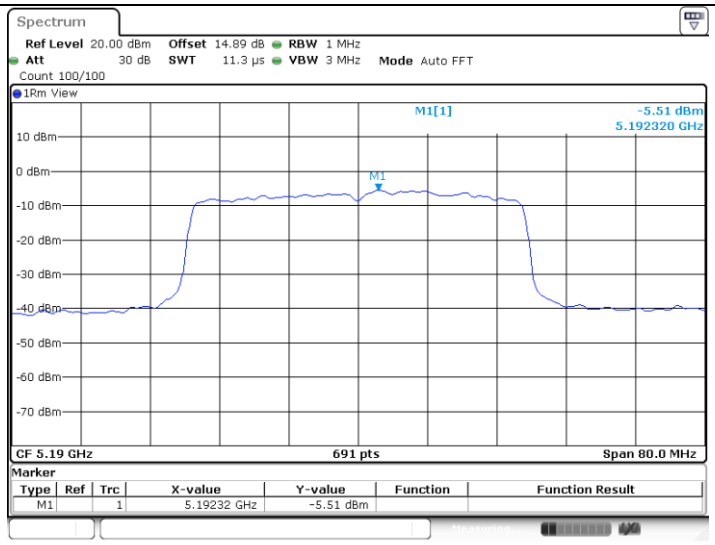
11AX20SISO_Ant1_5785



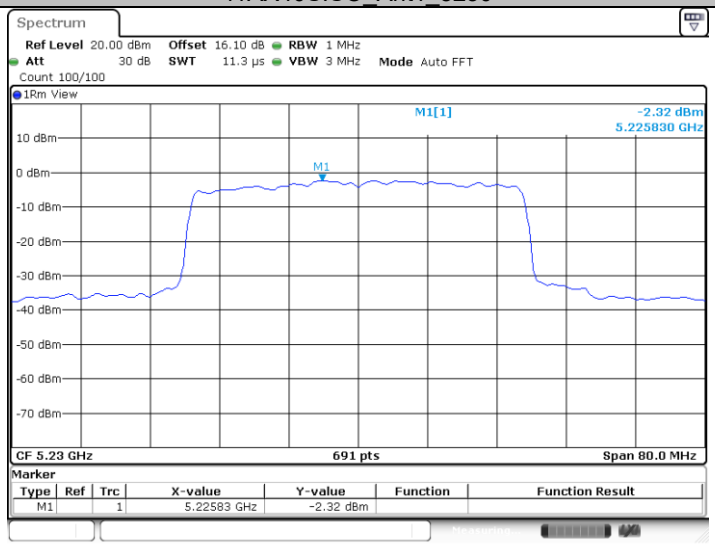
11AX20SISO_Ant1_5825



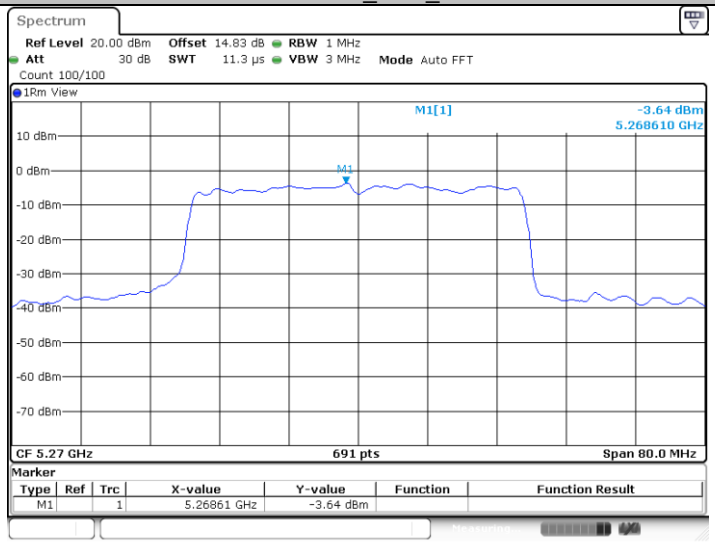
11AX40SISO_Ant1_5190



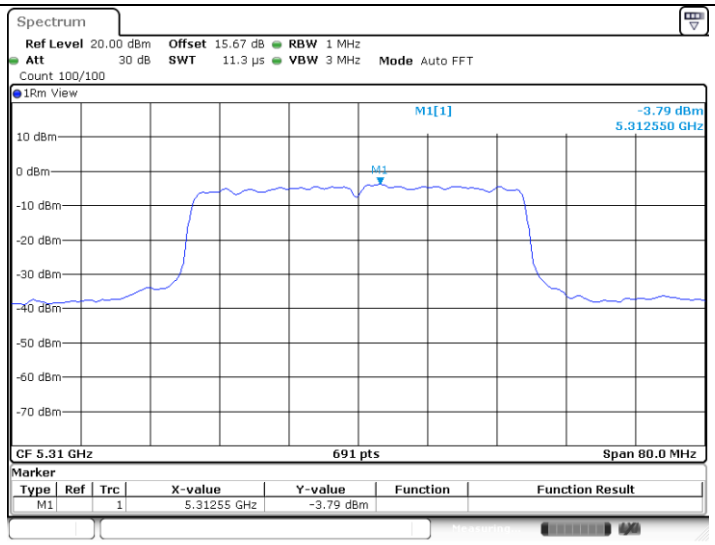
11AX40SISO_Ant1_5230



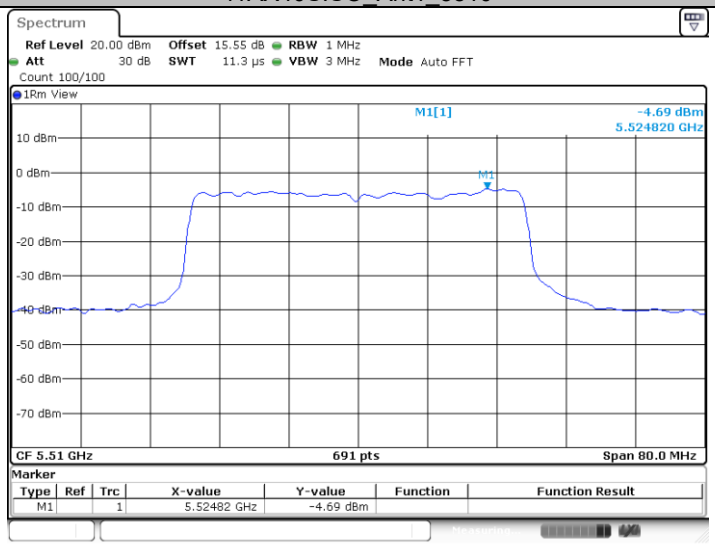
11AX40SISO_Ant1_5270



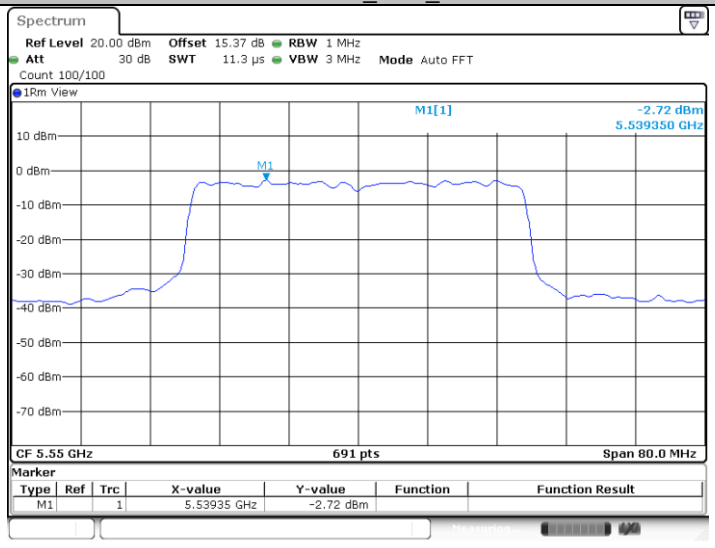
11AX40SISO_Ant1_5310



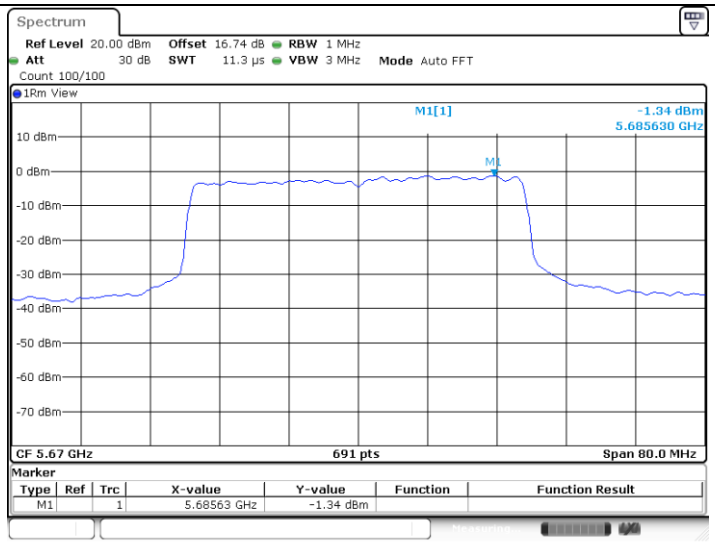
11AX40SISO_Ant1_5510



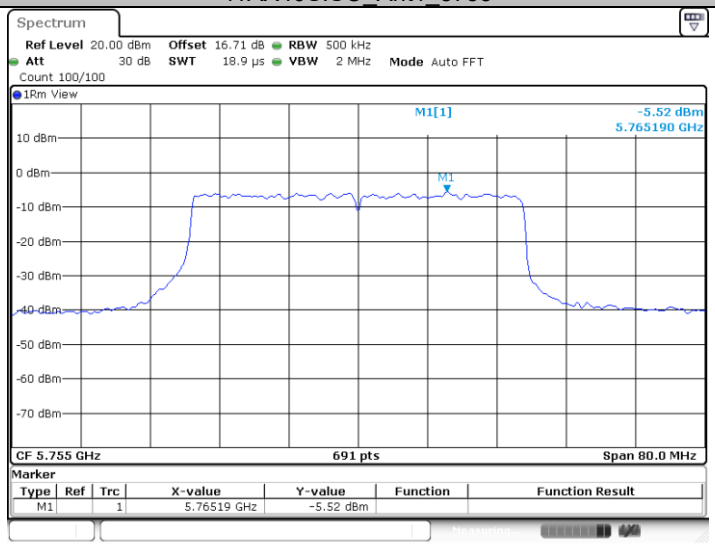
11AX40SISO_Ant1_5550



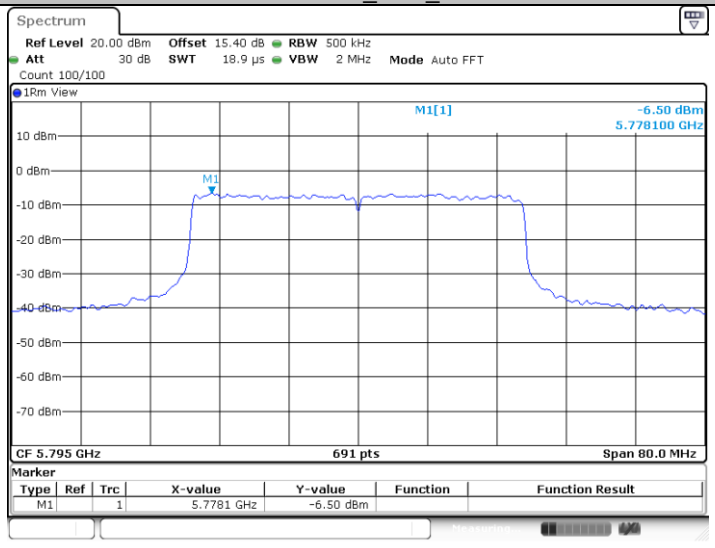
11AX40SISO_Ant1_5670



11AX40SISO_Ant1_5755



11AX40SISO_Ant1_5795



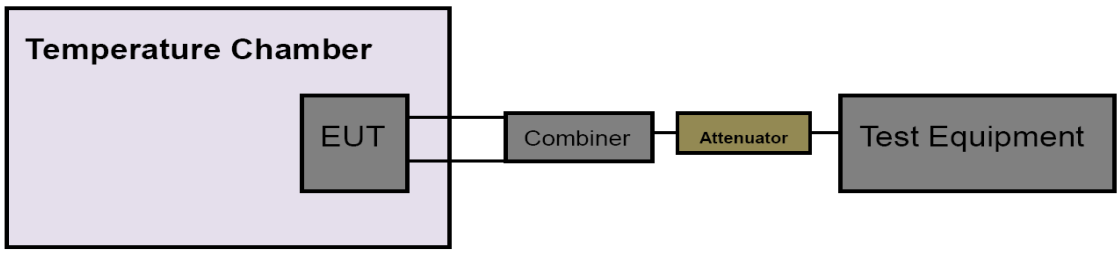
3.7. Frequency Stability

Limit

FCC CFR Title 47 Part 15 Subpart E Section 15.407(g)

Test Item	Limit	Frequency Range (MHz)
Frequency Stability	Specified in the user's manual, the transmitter center frequency tolerance shall be ±20 ppm maximum for the 5 GHz band (IEEE 802.11n specification)	5150~5250
		5250~5350
		5500~5700
		5725~5850

Test Configuration



Test Procedure

The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above.

(1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
(2) Set analyzer center frequency to transmitting frequency.
(3) Set the span to encompass the entire emissions bandwidth (EBW) of the signal.
(4) Set the RBW to: 8MHz, VBW=8MHz with peak detector and max hold settings.
(5) The test extreme voltage is to change the primary supply voltage from 4.5V to 5.5V percent of the nominal value.
(6) Extreme temperature is -10℃~40℃

NOTE: The EUT was set to continuously transmitting in continuously un-modulation transmitting mode.

Test Mode

Please refer to the clause 2.4.

Test Result

Voltage								
TestMode	Antenna	Freq(MHz)	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
20M	Ant1	5180	NV	NT	-41960.00	-8.100386	20	PASS
			LV	NT	-36960.00	-7.135135	20	PASS
			HV	NT	-31470.00	-6.075290	20	PASS
		5200	NV	NT	-23480.00	-4.515385	20	PASS
			LV	NT	-23480.00	-4.515385	20	PASS
			HV	NT	-23480.00	-4.515385	20	PASS
		5240	NV	NT	-27470.00	-5.242366	20	PASS
			LV	NT	-27470.00	-5.242366	20	PASS
			HV	NT	-27970.00	-5.337786	20	PASS
		5260	NV	NT	-26970.00	-5.127376	20	PASS
			LV	NT	-26470.00	-5.032319	20	PASS
			HV	NT	-25970.00	-4.937262	20	PASS
		5280	NV	NT	-30970.00	-5.865530	20	PASS
			LV	NT	-25470.00	-4.823864	20	PASS
			HV	NT	-24980.00	-4.731061	20	PASS
		5320	NV	NT	-25470.00	-4.787594	20	PASS
			LV	NT	-25470.00	-4.787594	20	PASS
			HV	NT	-24480.00	-4.601504	20	PASS
		5500	NV	NT	-25470.00	-4.630909	20	PASS
			LV	NT	-25470.00	-4.630909	20	PASS
			HV	NT	-25470.00	-4.630909	20	PASS
		5580	NV	NT	-25970.00	-4.654122	20	PASS
			LV	NT	-25970.00	-4.654122	20	PASS
			HV	NT	-25970.00	-4.654122	20	PASS
		5700	NV	NT	-26470.00	-4.643860	20	PASS
			LV	NT	-26470.00	-4.643860	20	PASS
			HV	NT	-25970.00	-4.556140	20	PASS
		5745	NV	NT	-26970.00	-4.694517	20	PASS
			LV	NT	-25970.00	-4.520453	20	PASS
			HV	NT	-26470.00	-4.607485	20	PASS
		5785	NV	NT	-26470.00	-4.575627	20	PASS
			LV	NT	-26470.00	-4.575627	20	PASS
			HV	NT	-26470.00	-4.575627	20	PASS
		5825	NV	NT	-26470.00	-4.544206	20	PASS
			LV	NT	-26470.00	-4.544206	20	PASS
			HV	NT	-26970.00	-4.630043	20	PASS
40M	Ant1	5190	NV	NT	-23480.00	-4.524085	20	PASS
			LV	NT	-23480.00	-4.524085	20	PASS
			HV	NT	-23980.00	-4.620424	20	PASS
		5230	NV	NT	-23480.00	-4.489484	20	PASS
			LV	NT	-23480.00	-4.489484	20	PASS
			HV	NT	-23480.00	-4.489484	20	PASS
		5270	NV	NT	-23480.00	-4.455408	20	PASS
			LV	NT	-23480.00	-4.455408	20	PASS
			HV	NT	-23480.00	-4.455408	20	PASS
		5310	NV	NT	-22980.00	-4.327684	20	PASS
			LV	NT	-22480.00	-4.233522	20	PASS
			HV	NT	-22980.00	-4.327684	20	PASS
		5510	NV	NT	-23980.00	-4.352087	20	PASS
			LV	NT	-23980.00	-4.352087	20	PASS
			HV	NT	-24480.00	-4.442831	20	PASS
		5550	NV	NT	-24980.00	-4.500901	20	PASS
			LV	NT	-24480.00	-4.410811	20	PASS
			HV	NT	-24480.00	-4.410811	20	PASS
		5670	NV	NT	-25470.00	-4.492063	20	PASS
			LV	NT	-25470.00	-4.492063	20	PASS
			HV	NT	-25470.00	-4.492063	20	PASS
		5755	NV	NT	-25970.00	-4.512598	20	PASS
			LV	NT	-25470.00	-4.425717	20	PASS

			HV	NT	-25970.00	-4.512598	20	PASS
		5795	NV	NT	-25470.00	-4.395168	20	PASS
			LV	NT	-25470.00	-4.395168	20	PASS
			HV	NT	-25970.00	-4.481450	20	PASS

Temperature								
TestMode	Antenna	Freq(MHz)	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
20M	Ant1	5180	NV	-10	-25970.00	-5.013514	20	PASS
			NV	0	-25970.00	-5.013514	20	PASS
			NV	10	-25470.00	-4.916988	20	PASS
			NV	20	-24980.00	-4.822394	20	PASS
			NV	30	-24980.00	-4.822394	20	PASS
			NV	40	-24980.00	-4.822394	20	PASS
		5200	NV	-10	-22980.00	-4.419231	20	PASS
			NV	0	-22980.00	-4.419231	20	PASS
			NV	10	-22980.00	-4.419231	20	PASS
			NV	20	-22480.00	-4.323077	20	PASS
			NV	30	-22480.00	-4.323077	20	PASS
			NV	40	-27970.00	-5.378846	20	PASS
		5240	NV	-10	-27470.00	-5.242366	20	PASS
			NV	0	-27470.00	-5.242366	20	PASS
			NV	10	-27470.00	-5.242366	20	PASS
			NV	20	-26970.00	-5.146947	20	PASS
			NV	30	-26970.00	-5.146947	20	PASS
			NV	40	-26970.00	-5.146947	20	PASS
		5260	NV	-10	-25470.00	-4.842205	20	PASS
			NV	0	-25970.00	-4.937262	20	PASS
			NV	10	-25970.00	-4.937262	20	PASS
			NV	20	-25470.00	-4.842205	20	PASS
			NV	30	-25470.00	-4.842205	20	PASS
			NV	40	-25970.00	-4.937262	20	PASS
		5280	NV	-10	-24980.00	-4.731061	20	PASS
			NV	0	-24980.00	-4.731061	20	PASS
			NV	10	-25470.00	-4.823864	20	PASS
			NV	20	-24980.00	-4.731061	20	PASS
			NV	30	-24980.00	-4.731061	20	PASS
			NV	40	-24980.00	-4.731061	20	PASS
		5320	NV	-10	-24980.00	-4.695489	20	PASS
			NV	0	-24480.00	-4.601504	20	PASS
			NV	10	-24480.00	-4.601504	20	PASS
			NV	20	-24480.00	-4.601504	20	PASS
			NV	30	-24480.00	-4.601504	20	PASS
			NV	40	-24480.00	-4.601504	20	PASS
		5500	NV	-10	-25970.00	-4.721818	20	PASS
			NV	0	-25470.00	-4.630909	20	PASS
			NV	10	-25470.00	-4.630909	20	PASS
			NV	20	-25470.00	-4.630909	20	PASS
			NV	30	-25470.00	-4.630909	20	PASS
			NV	40	-25470.00	-4.630909	20	PASS
		5580	NV	-10	-25470.00	-4.564516	20	PASS
			NV	0	-25970.00	-4.654122	20	PASS
			NV	10	-26470.00	-4.743728	20	PASS
			NV	20	-25970.00	-4.654122	20	PASS
			NV	30	-25470.00	-4.564516	20	PASS
			NV	40	-25970.00	-4.654122	20	PASS
		5700	NV	-10	-26470.00	-4.643860	20	PASS
			NV	0	-26470.00	-4.643860	20	PASS
			NV	10	-26470.00	-4.643860	20	PASS
			NV	20	-26470.00	-4.643860	20	PASS
			NV	30	-26470.00	-4.643860	20	PASS
			NV	40	-25970.00	-4.556140	20	PASS
		5745	NV	-10	-26970.00	-4.694517	20	PASS

			NV	0	-25970.00	-4.520453	20	PASS
			NV	10	-26470.00	-4.607485	20	PASS
			NV	20	-26470.00	-4.607485	20	PASS
			NV	30	-26970.00	-4.694517	20	PASS
			NV	40	-25970.00	-4.520453	20	PASS
		5785	NV	-10	-26470.00	-4.575627	20	PASS
			NV	0	-26470.00	-4.575627	20	PASS
			NV	10	-26470.00	-4.575627	20	PASS
			NV	20	-26470.00	-4.575627	20	PASS
			NV	30	-26970.00	-4.662057	20	PASS
			NV	40	-26470.00	-4.575627	20	PASS
		5825	NV	-10	-26470.00	-4.544206	20	PASS
			NV	0	-26470.00	-4.544206	20	PASS
			NV	10	-26470.00	-4.544206	20	PASS
			NV	20	-26470.00	-4.544206	20	PASS
			NV	30	-26970.00	-4.630043	20	PASS
			NV	40	-26970.00	-4.630043	20	PASS
40M	Ant1	5190	NV	-10	-23480.00	-4.524085	20	PASS
			NV	0	-23480.00	-4.524085	20	PASS
			NV	10	-23480.00	-4.524085	20	PASS
			NV	20	-23480.00	-4.524085	20	PASS
			NV	30	-23480.00	-4.524085	20	PASS
			NV	40	-23480.00	-4.524085	20	PASS
		5230	NV	-10	-23480.00	-4.489484	20	PASS
			NV	0	-23480.00	-4.489484	20	PASS
			NV	10	-23980.00	-4.585086	20	PASS
			NV	20	-23480.00	-4.489484	20	PASS
			NV	30	-23480.00	-4.489484	20	PASS
			NV	40	-23480.00	-4.489484	20	PASS
		5270	NV	-10	-23480.00	-4.455408	20	PASS
			NV	0	-23480.00	-4.455408	20	PASS
			NV	10	-22980.00	-4.360531	20	PASS
			NV	20	-22980.00	-4.360531	20	PASS
			NV	30	-22480.00	-4.265655	20	PASS
			NV	40	-22980.00	-4.360531	20	PASS
		5310	NV	-10	-22980.00	-4.327684	20	PASS
			NV	0	-23480.00	-4.421846	20	PASS
			NV	10	-22980.00	-4.327684	20	PASS
			NV	20	-22980.00	-4.327684	20	PASS
			NV	30	-22980.00	-4.327684	20	PASS
			NV	40	-22480.00	-4.233522	20	PASS
		5510	NV	-10	-24480.00	-4.442831	20	PASS
			NV	0	-24480.00	-4.442831	20	PASS
			NV	10	-24480.00	-4.442831	20	PASS
			NV	20	-24480.00	-4.442831	20	PASS
			NV	30	-24480.00	-4.442831	20	PASS
			NV	40	-24480.00	-4.442831	20	PASS
		5550	NV	-10	-24980.00	-4.500901	20	PASS
			NV	0	-24980.00	-4.500901	20	PASS
			NV	10	-24480.00	-4.410811	20	PASS
			NV	20	-24480.00	-4.410811	20	PASS
			NV	30	-24480.00	-4.410811	20	PASS
			NV	40	-24480.00	-4.410811	20	PASS
		5670	NV	-10	-24980.00	-4.405644	20	PASS
			NV	0	-25470.00	-4.492063	20	PASS
			NV	10	-25470.00	-4.492063	20	PASS
			NV	20	-24980.00	-4.405644	20	PASS
			NV	30	-25470.00	-4.492063	20	PASS
			NV	40	-25470.00	-4.492063	20	PASS
		5755	NV	-10	-25970.00	-4.512598	20	PASS
			NV	0	-25970.00	-4.512598	20	PASS
			NV	10	-25970.00	-4.512598	20	PASS
			NV	20	-25470.00	-4.425717	20	PASS
			NV	30	-25970.00	-4.512598	20	PASS
			NV	40	-25970.00	-4.512598	20	PASS

		5795	NV	-10	-25470.00	-4.395168	20	PASS
			NV	0	-25470.00	-4.395168	20	PASS
			NV	10	-25470.00	-4.395168	20	PASS
			NV	20	-25970.00	-4.481450	20	PASS
			NV	30	-25470.00	-4.395168	20	PASS
			NV	40	-25970.00	-4.481450	20	PASS

3.8. Antenna Requirement

Requirement

FCC CFR Title 47 Part 15 Subpart C Section 15.203
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Test Result

The directional gain of the antenna is less than 6dBi, please refer to the EUT internal photographs antenna photo.

3.9. Dynamic Frequency Selection

Requirement

Table 1: Applicability of DFS Requirements Prior to Use of a Channel

Requirement	Operational Mode		
	Master	Client Without Radar Detection	Client With Radar Detection
Non-Occupancy Period	Yes	Not required	Yes
DFS Detection Threshold	Yes	Not required	Yes
Channel Availability Check Time	Yes	Not required	Not required
U-NII Detection Bandwidth	Yes	Not required	Yes

Table 2: Applicability of DFS requirements during normal operation

Requirement	Operational Mode	
	Master Device or Client with Radar Detection	Client Without Radar Detection
DFS Detection Threshold	Yes	Not required
Channel Closing Transmission Time	Yes	Yes
Channel Move Time	Yes	Yes
U-NII Detection Bandwidth	Yes	Not required

Additional requirements for devices with multiple bandwidth modes	Master Device or Client with Radar Detection	Client Without Radar Detection
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required
Note: Frequencies selected for statistical performance check (Section 7.8.4) should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency.		

Limit

1. DFS Detection Thresholds

Table 3: DFS Detection Thresholds for Master Devices and Client Devices With Radar Detection

Maximum Transmit Power	Value (See Notes 1, 2, and 3)
EIRP ≥ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm
Note 1: This is the level at the input of the receiver assuming a 0dBi receive antenna. Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response. Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.	

2. DFS Response Requirements

Table 4: DFS Response Requirement Values

Parameter	Value
Non-occupancy period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds See Note 1.
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.
Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst. Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required facilitating a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions. Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.	

Radar Test Waveforms

This section provides the parameters for required test waveforms, minimum percentage of successful detections, and the minimum number of trials that must be used for determining DFS conformance. Step intervals of 0.1 microsecond for Pulse Width, 1 microsecond for PRI, 1 MHz for chirp width and 1 for the number of pulses will be utilized for the random determination of specific test waveforms.

Table 5 Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (μsec)	PRI (μsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a	$\text{Roundup}\left\{\left(\frac{1}{360}\right)\cdot\left(\frac{19\cdot10^6}{\text{PRI}_{\mu\text{sec}}}\right)\right\}$	60%	30
		Test B: 15 unique PRI values randomly selected within the range of 518-3066 μsec, with a minimum increment of 1 μsec, excluding PRI values selected in Test A			
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120
Note 1: Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests.					

A minimum of 30 unique waveforms are required for each of the Short Pulse Radar Types 2 through 4. If more than 30 waveforms are used for Short Pulse Radar Types 2 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms. If more than 30 waveforms are used for Short Pulse Radar Type 1, then each additional waveform is generated with Test B and must also be unique and not repeated from the previous waveforms in Tests A or B.

For example if in Short Pulse Radar Type 1 Test B a PRI of 3066 μsec is selected, the number of pulses would be Round up $\left\{\left(\frac{1}{360}\right)\cdot\left(\frac{19\cdot10^6}{3066}\right)\right\}$ = Round up {17.2} = 18.

Table 5a - Pulse Repetition Intervals Values for Test A

Pulse Repetition Frequency Number	Pulse Repetition Frequency (Pulses Per Second)	Pulse Repetition Interval (Microseconds)
1	1930.5	518
2	1858.7	538
3	1792.1	558
4	1730.1	578
5	1672.2	598
6	1618.1	618
7	1567.4	638
8	1519.8	658